THE ECONOMICS OF PUBLIC FINANCE

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THE ECONOMICS OF PUBLIC FINANCE

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TO

Margaret Bronson Taylor

PREFACE

Recent developments in the fields of fiscal theory and fiscal policy are without doubt among the most significant developments in economics and in what may be called, in a modern sense, "political economy." Depression and war have not only provided the need for intensive analytical work in these fields, but have provided testing grounds for the application of theory.

Along lines of broad theory and policy, the major recent contributions to the literature of public finance have been made largely by monetary economists. Their business cycle studies have progressed in terms of money and income; they have seen the inadequacy of purely monetary controls, and have been brought up face to face with fiscal controls as the most promising general solution to the problem of cyclical underemployment. The current barrier between the undergraduate student of public finance and the rich supply of recent materials carrying significant implications for his study is attributable to the following facts: (1) the current fiscal literature is nearly all on a level inaccessible to undergraduates, (2) it exists in widely scattered books and periodicals, which presents mechanical difficulties in its class use, and (3) it is nowhere integrated with that large part of traditional public finance literature which is currently useful. A prime purpose of this book is to remove the barrier, making available to the student materials for which, in the author's experience, he has a genuine hunger.

A second purpose of this book is to justify the inclusion of public finance in an economics curriculum. To date it has appeared that such inclusion has reflected little more than "squatters' rights." We have, of course, set up elementary theory as a prerequisite to public finance, on the principle that some basic theoretical concepts are

applicable to the study of public finance. In practice, I fear that the two courses have touched only at two points: diminishing marginal utility as applied to progressive taxation, and general price analysis as the vehicle for determining tax incidence. At both points the instructor has been dismayed to find how ephemeral basic economic concepts are in the mind of the student—but that is another matter. Though realizing that political and sociological aspects of public finance cannot be ignored, the predominantly economic aspects of the study are here accented.

A third objective has been to provide a unified treatment of the essentials of the subject in a space which lends itself to use in a one-term course. Even so, it is believed that time will be available for a respectable amount of specialized reading, either to elaborate points briefly discussed or to fill in gaps—for this book is intentionally not encyclopedic. And it is hoped that the book will neither get in the instructor's way nor teach his course for him. Opportunities for disagreement abound, and requirements for elaboration are inevitable.

Value judgments are expressed throughout the book. It has always seemed curious to the author that writers of textbooks in controversial fields have felt constrained to keep their opinions and evaluations to themselves. This is in strange contrast to the behavior of most good classroom teachers, who feel little of such constraint. Students want conclusions and opinions expressed. The textbook always has the first word, but the instructor who disagrees can have any number of last words, and is not confined in his remarks to the printable.

It is not possible to name, or even to know, all those persons whose teachings and writings have contributed to the conclusions or the points of view expressed in this book. Many are mentioned in the text or in footnotes. I owe a special debt to Professors Lester V. Chandler and George R. Taylor, of Amherst College. Each has generously given his time in discussion and in reading the entire manuscript in early draft. They have been extremely helpful in matters of organization, the detection of errors, and the improvement of style. On occasion I have stubbornly ignored their suggestions; this will account for any remaining errors.

My father, Joseph E. Taylor, has read some sections of the manu-

script, and his helpful suggestions have been incorporated at various points. I regret that space does not permit the mention of several others who have given specific aid, including those who have assisted in the mechanics of preparing the manuscript. They will, I hope, realize that their aid is genuinely appreciated.

May, 1948

PHILIP E. TAYLOR

CONTENTS

GENERAL SOURCES OF INFORMATION USEFUL TO STUDENTS OF PUBLIC FINANCE

The following are standard sources of factual information in the field of American public finance:

Statistics of government income, expenditure, debt:

Annual Report of the Secretary of the Treasury on the State of the Finances, Washington, Government Printing Office.

The primary source of statistical and other information concerning federal finance.

U. S. Bureau of the Census, *State Finances*, Washington, Government Printing Office, Annual.

Prior to 1942 this annual publication was entitled *Financial Statistics of States*. It is the standard source of financial statistics for state governments.

U. S. Bureau of the Census, *City Finances*, Washington, Government Printing Office, Annual.

Prior to 1942 this annual publication was entitled *Financial Statistics of Cities*. It is the standard source of statistics for larger city governments. Prior to 1931, statistics were collected only from cities of over 30,000 population; between 1932 and 1941 from cities over 100,000 population; and since 1941 from cities over 25,000 population. Statistics from county governments appear from time to time in *County Finances*, while information on small cities and other local subdivisions appears decennially in *Governmental Finances in the United States* (1932, 1942) and in special reports of those years. All are publications of the Census Bureau.

U. S. Bureau of the Census, *Statistical Abstract of the United States*, Washington, Government Printing Office, Annual.

Contains a section on federal finances and one on state and local

finances. The statistics presented are taken from the publications listed above.

Other economic statistics:

Federal Reserve Bulletin, Monthly, Board of Governors of the Federal Reserve System, Washington.

Statistics of money, banking, and general business conditions.

Survey of Current Business, Monthly, U. S. Department of Commerce, Bureau of Foreign and Domestic Commerce, Washington.

Statistics of national product, national income, and general business conditions.

Monthly Labor Review, U. S. Department of Labor, Bureau of Labor Statistics, Washington.

Statistics of prices, employment, wages.

State and Federal Tax Systems:

Tax Systems, Chicago, Commerce Clearing House.

Prior to the ninth edition (1942) this publication was entitled *Tax Systems of the World*. Under that title it was prepared by the Tax Research Foundation, and was done in considerably more detail and with more concern for fine distinctions. It is somewhat less useful since its preparation by the staff of Commerce Clearing House. Though now less useful it is the only single source of factual material on the types of taxes used by the states.

(A list of recommended readings pertinent to the subject discussed will be found at the end of each text chapter.)

CHAPTER 1

INTRODUCTION: THE FIELD OF PUBLIC FINANCE AND SOME BASIC FACTS

THE AREA INCLUDED IN PUBLIC FINANCE

Government is the biggest of the big enterprises. We are awed by the "billion dollar corporation," and yet by such measures as the volume of receipts and payments, and the number of employees, such a corporation is a dwarf as compared with the federal government of the United States. The total income of the United States Steel Corporation and its subsidiaries in 1945 was about 1744 million dollars; [1] the gross receipts of the federal government for the fiscal year ending 1945 were 47,739 million dollars.[2] In the same year U. S. Steel paid out, including dividends and taxes, about 1747 million dollars, while the federal government's payments in the fiscal year ending 1945 amounted to 100,405 million dollars. U. S. Steel's average number of employees during 1944 was 314,888; [3] in October, 1944, the federal government employed, exclusive of men and women in military service, 3,271,000 persons.[4]

Federal, state, and local governments in the United States will take in taxes during the fiscal year ending June 30, 1948, almost 50 billion dollars, an amount equal to roughly one-third of the whole

[1] *Commercial and Financial Chronicle*, Vol. 163, No. 4461, February 4, 1946, p. 696.
[2] *Annual Report of the Secretary of the Treasury*, 1945, p. 480.
[3] U. S. Steel Corporation, *Annual Report*, 1944, p. 12.
[4] U. S Bureau of Labor Statistics, *Monthly Labor Review*, Vol. 59, No. 6, December, 1944, p. 1298.

national income of the previous year. Fifty billion dollars is twice the income of farmers in the United States in the extremely prosperous agricultural year of 1946. It is almost three times the total of interest, dividends, and rents received by the American people in that same year. Governments are expected to spend in the fiscal year 1948 twice as much as American consumers spent for food in 1946, and half again as much as they spent for food and clothing combined. At the end of 1946 governments were employing one-third as many persons as were employed in all manufacturing, and as many as were employed in all financial enterprises and service trades combined.

A war or immediate post-war period is admittedly one during which the financial operations of government are unusually large in terms of pre-war experience. The claim may thus be made that comparisons based upon a war period give an inaccurate picture of the relative financial importance of government. If we go back to the decade of the nineteen-thirties, however, though absolute figures are lower, the relation of public to private expenditures and employment is not markedly different. But even the decade of the thirties may be objected to as being abnormal. What, then, shall we regard as normal? The federal budget for fiscal 1948—two years following the war—may be cut to 35 billion dollars, while it is evident that state and local expenditures will rise above 10 billion dollars. One would be rash indeed to predict that in the near future governmental expenditures will fall below one-fourth of national income.

The channeling of so significant a share of the income stream through government cannot but have effects of great magnitude upon the whole economy. The impact of taxation and governmental spending upon the amount and distribution of income is such as to deserve much better than the customary economy of hard thinking and the frequently dyspeptic repetition of dogma with respect to public finance. Government is very big business; its financial operations are so significant to economic well-being as to merit the maximum of penetrating analysis and understanding.

The ultimate goal of the study of public finance is to develop proper fiscal policy. This implies that the purpose of the study is to determine what *should* be done in the fiscal field, and what should be done evidently involves careful evaluation of the effects of what

is being done as well as projection of new and sometimes daring plans for the future. "Fiscal policy" embraces matters of policy at various levels, ranging from matters of local concern, such as the desirability of erecting a new grammar school, to matters of broad national policy such as the proper sphere of governmental fiscal activity in relation to the operation of the economy as a whole.

There is much to recommend postponement of definition of a field of study until that study is completed.[5] The bare bones of definition take on muscular and organic significance as the study progresses, and only at the end do the implications of the definition have real meaning. Nevertheless an obligation arises at the outset to make some observations designed to give the student some preliminary "feel" of his whereabouts.

"Public Finance" *Public* finance deals with the finances of the public as an organized group under the institution of government. It thus deals only with the finances of *government.* The *finances* of government include the raising and disbursement of government funds. Public finance is concerned with the operation of the *fisc*, or public treasury. Hence, to the degree that it is a science, it is the *fiscal* science; its policies are *fiscal* policies, its problems are *fiscal* problems.

Public finance is not concerned with the direct regulatory functions of government over the private economy. It is not concerned with such matters as the regulation of railroads and public utilities, monopolies, banks, and security markets, except as administration of these programs involves expenditure of public funds or as taxes may be used for purposes of regulation. Government affects the private economy in very many ways, but public finance is concerned only with the raising and disbursement of funds by government. However, as we shall see in later chapters the raising and disbursement of government funds may themselves have a significant effect upon the level at which the economy operates.

The raising and disbursement of government funds by no means

[5] Professor Jacob Viner is reported to have defined economics as "What economists do." (K. E. Boulding, *Economic Analysis,* New York, Harper, 1941, p. 3.) Such circuition may call forth condemnation from the logician, but not from the teacher who has experienced the futility of streamlined definition of a field to which the student is just being introduced.

constitute a narrow field of problems. Determination of appropriate measures for raising funds implies an understanding of the flow of production from and income through the private economy, and therefore of the way the whole economy works. Determination of an appropriate expenditure program implies insight into such vast fields as the effects of public spendings upon the income stream of the whole economy, the relative social utilities of governmental services and private spendings, and the impact of change in government's expenditures upon the structure and philosophy of government. The field is thus both broad and deep; the solution of fiscal problems requires coordination of the efforts of many specialists.

The Questions of Public Finance Who these specialists are and what they do are indicated by the kinds of questions asked of public finance. Some of the questions asked are of the Who? What? Where? Why? type and are answerable only by cause and effect analysis. Such questions therefore call for application of the scientific method and require scientific answers. Other questions are of the Should? Ought? May? type and require value judgments. Some of the specialists are thus necessarily scientists and some are artists. Remember that we are concerned in public finance with the determination of appropriate fiscal policies, which under democratic government must be not only right, but also feasible; not only capable of improving fiscal or economic conditions, but also capable of adoption.

Listed below are some (but not all) of the questions asked of public finance.

1. What are the effects of a fiscal proposal or practice upon:
   national production?
   national income?
   the national standard of living?
   distribution of wealth and income?
   the financial markets?
   particular localities?
   particular lines of business?
   particular economic classes?

2. What are the effects of the proposal or practice upon:

rights of citizens?
structure and form of government?
international relations?

3. Is adoption of the proposal possible?

4. How do we:
   procure the necessary personnel?
   procure the materials?
   get the job done efficiently?

The various parts of question 1 are answerable by the economist, since they involve knowledge of the structure of the economy and the forces which make it operate as it does. Question 2 can be answered by the political scientist, with assistance from the political philosopher, who is inclined toward the more esoteric aspects of government, and the lawyer, who is the practitioner in rules and regulations.

Question 3 requires an answer from the politician, whose function the London *Economist* has described as follows:

> ". . . there are men who have politics in their blood just as artists are born to paint, and who will devote their lives to practice of their art even if they have to starve to do so. But the professional politician is not merely inevitable, he is necessary. He is the practitioner of the art of the possible, without whom almost everything is impossible. He is the man who gets things done, and his reward, his meat and drink, is power. From him cabinets draw their strength and parties their cohesion." [6]

Question 4 must be answered by the administrator, whose art lies in organization, in getting the right people for the right jobs, in programming the work, in putting on the right amount of pressure in the right places at the right times. His art is constantly directed toward his goal of efficiency.

These are the specialists whose particular abilities and accomplishments are required if proper answers are to be given to the questions asked of public finance. Many of the questions listed above

[6] "What Kind of M Ps?" *The Economist,* Vol. CL, No. 5343, January 19, 1946, p. 85.

can be answered by specialists independently of one another. But the final questions, "Do we want it?" "Can we afford it?" can usually be answered only by integration of the results of specialized investigation and opinion.

This book is primarily concerned with the economic aspects of public finance. From time to time political limitations upon change are cited, and practical possibilities are briefly considered. On the whole, however, conclusions are drawn from the viewpoint of the economist. In many branches of public finance the questions are so essentially economic that his viewpoint should be considered supreme. In other branches, where his view does not carry supreme authority, conclusions are stated as first approximations, to be qualified or amended by other specialists.

Method Two approaches to the economics of public finance are necessary, the institutional and the analytical. A description of the governmental and economic institutions through which public finance operates is basic to the study. Administration of appropriate fiscal policy is accomplished by and within the framework of this governmental structure and through various economic institutions. Not only do existing legislation and existing governmental and economic organization represent useful starting points for critical study, but recognition of inherent resistance to change in the institutions (whether desirable or not) is conducive to a healthy point of view with respect to the types of fiscal policy which may be feasible.

The analytical approach applies the techniques of economic analysis to the materials of public finance. The techniques of economic analysis are essentially those techniques which relate causes and their effects, isolating and evaluating the various forces which operate together to make the economy behave as it does—or should. We shall therefore draw heavily upon economic "theory." It is hoped that readers will have gained some previous acquaintance with economic analysis or theory, although the theoretical aspects of the problems discussed in this book do not presuppose a high degree of competence along this line.

GOVERNMENT FINANCE AND BUSINESS FINANCE

What similarities and what differences are to be found in government fiscal operations as compared to monetary operations of private business? It has sometimes been said that government and business are fundamentally dissimilar in that government adjusts its tax income to its desired scale of expenditures, whereas business must adjust its expenditure to its income. While there is an aspect of coercion in government's taxing power which is not available to ordinary business, the distinction mentioned is hardly real. Both government and business (and consumers) resort to borrowing when current revenues are inadequate to accomplish what they wish to do. Income for business is not necessarily a more fixed quantity than for government. Businesses often increase income by first increasing expenditure, and loans fill the gap. Government borrows in anticipation of tax receipts, and borrows to spend to increase national income, from which flow increased tax receipts. On the other hand, considerations of the adequacy of tax revenues and ability to handle debt inevitably condition the scale of expenditures which government undertakes.

There are differences, however, between government and business with respect to their financial operations. Business determines the advisability of expenditure almost exclusively in terms of its capacity to produce revenue *for the business*. Government, on the other hand, spends to promote general welfare, where no direct revenue is anticipated. Even though government may spend to support the economy and to promote business prosperity, the increment to national income thus generated does not accrue to government unless government chooses to tax it away from individuals. Government is in a position to finance improvements of a general nature, and activities for which financial return is uncertain or long delayed. The objectives and motives of government in making expenditures are thus different from those of private business.

Another difference between government and private business lies in the different degrees of their coercive authority. By and large, government policy is determined more democratically than is business policy. But once determined, tax measures are coercive, since

the alternatives of not earning taxable income, not buying taxed goods, not accumulating an estate prior to death, or not owning property leave little opportunity for reasonable choice. The only way to avoid a general sales tax is not to buy. It should be noted, however, that to the extent business is monopolized, eliminating choice among qualities and prices of useful articles, an effective coercion is present. Benjamin Franklin's assertion that the only human certainties are death and taxes testifies to the coerciveness of fiscal power. It obviously follows that coercive power implies great responsibility in the formulation of fiscal policy; such power is ultimately justified only by its fruitfulness for the general good.

Much more fruitful for our analysis is an emphasis upon the similarities of public and private finance. Although it is true that government's potential income has much broader limits than does the income of any single private business, that government may take a longer and larger view with respect to the desirability of an expenditure, can ignore the absence of direct money return, and that its rules are more coercive than those of business, government and business operate in the same economy. Government takes taxes out of the general income stream, it spends its funds into the general income stream, it borrows funds from the same sources as does private business, it employs private concerns to produce for it, and fiscal policy stands or falls by its effects upon the private economy. A much healthier approach to fiscal policy results from consideration of government as an element in the economy than is to be had from assuming government to be a peculiar excrescence upon it.

GOVERNMENTAL STRUCTURE IN THE UNITED STATES

A basic fact, having many implications for public finance in the United States, is the multiplicity of governmental units. An American citizen is affected by the expenditure programs and the revenue-raising programs of several layers of government. For he is not only a citizen of the United States, implying that he is governed by the federal government, but he cannot be an American

citizen without being subject also to government by a state and a local subdivision of the state.[7] Government therefore means federal, state, and local government. In the category of "local government" we include county, township, and municipal government, and for purposes of administration or finance the municipality may be subdivided further into "special districts"—school districts, fire districts, sewer districts, and so forth—created to carry on functions and improvements of a local nature. The multiplicity of local governmental units has reached astounding proportions in some areas. In 1941 there were over fifteen thousand local governmental units in the state of Illinois, each empowered to levy taxes.[8] The piling up of governments makes for complexity in establishment of intergovernmental relationships, overlapping of administrative jurisdictions, division of authority, and inability of the average citizen to exercise his responsibility intelligently.

The student of public finance will do well to understand, at least in broad outline, the relation of one type of government to another in the United States. An understanding of this relationship will serve (1) to establish principles pointing to the types of functions to be performed at different governmental levels, and (2) to remind the student that fiscal idealism may run afoul of political fact.

Powers of Federal and State Governments[9] In a democratic society ultimate authority rests with the citizen; "governments derive their just powers from the consent of the governed." Although "sovereignty" in democracy resides in the people, in the sense that the people represent the ultimate authority, it is possible to speak of a *sovereign* government—a government which has supreme governmental authority, and is not subject to the control or authority of another government. A sovereign government is free to

[7] Unless, of course, he has residence in the District of Columbia, which is governed by a local subdivision of the federal government.

[8] S. E. Leland (Ed.), *State and Local Fiscal Relations in Illinois,* University of Chicago Press, 1941, p. 33.

[9] The student of government will recognize that this section represents but a bare summary of the general subject. The only defense which can be made of the ruthless elimination of detail and qualification is lack of space and the relative insignificance to this type of study of detail and qualification.

determine its own action (within the limits of authority granted to it by its citizens), although *it* may choose to limit those actions by contract or by law.[10]

In the United States, a citizen lives under two *sovereign* governments, federal and state. The areas in which each government is sovereign are either defined or implied by the Constitution of the United States. Local governments—county, township, city or village, and special districts—are not sovereign in any sense. They are political subdivisions of the state, created by the state or under state authority, and exercising powers granted to them by the state. Since local governments do what they do under authorization from the state government (authorization being granted both by the local government's charter and by the statute laws of the state), questions of conflict of authority arise only between federal and state governments.

The supreme law of the land—the Constitution of the United States—defines, partially by implication, the areas of supremacy of federal and state governments. After reserving some rights and powers to the people by denying them to both federal and state governments, the Constitution enumerates powers of the federal government, and reserves the remainder to the states. Rights reserved to the people include the basic protection of citizens against suspension of the habeas corpus privilege; ex post facto legislation; irresponsible charges of treason; abridgment of the freedom of religion, speech, assembly, and the press; unreasonable search and seizure; deprivation of life, liberty, or property without due process of law; inadequate opportunity or representation before the courts; denial of the right to vote on account of race, color, or previous condition of servitude. The above list is not complete, but does indicate the area in which citizens are legally immune from interference by any level of government.

The powers of the federal government are in part specifically granted to it and in part granted by prohibition of their use by the

[10] For example, when government borrows it sells securities (contracts) which bind it to certain financial promises to repay principal and to pay interest; or it may limit the amount of its borrowing by law establishing a limit to gross debt.

states. The "enumerated" powers of the federal government which are significant to the study of public finance are:

1. To lay and collect taxes uniformly throughout the United States, to pay the debts and provide for the common defense and general welfare of the United States.
2. To regulate commerce with foreign nations and among the several states.
3. To coin and regulate the value of money.
4. To establish post offices and post roads.
5. To raise, support, and regulate an army and navy.
6. To adjudicate controversies between states.

The states are expressly prohibited from practices interfering with or impairing the performance of these functions by the federal government.

Article X in amendment of the Constitution states: "The powers not delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the States respectively, or to the people." Thus we may say that, among the powers not reserved to the people, the federal government has authority over those matters which affect foreign relations and foreign commerce, interstate commerce, the respect of states for the actions of other states and the rights of citizens of other states, and the establishmen of uniform coinage, weights, measures, and postal systems. The remaining powers belong to the states, and are limited to authority over intrastate affairs so long as exercise of that authority does not encroach upon the federal interstate or international domain.[11] The boundary line at which federal authority ends and state authority begins is not a clear nor fixed line. The boundary at any given time is drawn by interpretations of the courts in specific cases. The tendency through the last half-century has been to expand the

[11] In the *Houston, East and West Texas Railway* vs. *United States* case (1914), the Supreme Court stated. "Wherever the interstate and intrastate transactions of carriers are so related that the government of the one involves the control of the other, it is Congress, and not the State, that is entitled to prescribe the final and dominant rule, for otherwise Congress would be denied the exercise of its constitutional authority and the State, and not the Nation, would be supreme within the national field." 234 U. S. 351–352.

bounds of federal authority by an increasingly more liberal interpretation of the term "interstate commerce."

This dualism in American government creates problems which are important to the study of public finance. The burden of taxation upon the individual citizen is the sum of federal, state, and local taxes. There is little that can be done, except on the volition of federal or state government, to eliminate discriminatory double taxation of American citizens who reside within a given state. There is little that can be done, except voluntarily by states, to provide uniformity among themselves in tax methods or tax burdens. It is impossible by direct legal methods to enforce integration of federal and state tax systems. It is impossible by direct legal methods to force state and local governments to coordinate their tax and expenditure policies with those of the federal government for the purpose of counteracting the movements of the business cycle. The absence of power to enforce uniformity may, of course, have its desirable aspects. Superior authority may not always be accompanied by superior wisdom; the absence of supreme centralized authority can obviate the possibility of general application of unwise policy.

However inadequate the legal authority of the federal government may be in imposing its financial will or wisdom upon the states, the tremendous financial resources provided by its taxing and borrowing power have served it well as a substitute therefor. The instrument of grants-in-aid has enormously extended the practical power of the federal government over the states. By the offer of federal money (with strings attached) for the construction of highways within the states, the federal government has in effect dictated [12] the creation of highway departments in state governments, the appropriation of state money for the construction and maintenance of particular roads and highways, the location and type of road construction, and the earmarking of certain state revenues for highway construction. Under the Social Security Act of 1935, grants-in-aid were successfully utilized to encourage the states to appro-

[12] Although, as Professor Bittermann states, the methods of the Bureau of Public Roads have been more persuasive than coercive and dictatorial. (Henry J. Bittermann, *State and Federal Grants-in-Aid,* New York, Mentzer, Bush & Co., 1938, p. 282.)

priate money for uniform programs of unemployment compensation, old-age assistance, child health and welfare, general public health, vocational rehabilitation, and aid to the blind.[13] Obviously the federal government had no legal authority under the Constitution by which it could force the states to undertake such projects according to federal standards. But the offer of "dollar-for-dollar" in federal money was too attractive for the states to ignore, and they voluntarily fell into line. Few would deny that to date the result has been good, both in getting desirable things done and in improving the quality of state administration of highways and of many welfare activities.

It is clear that legally the choice of whether or not a state is to levy death taxes lies with that state. It may even advertise its policy, in order to attract as residents wealthy persons who prefer to die in states without death taxes. But if through pressure for more revenue the federal government then decides to institute a death tax and, out of consideration for states with death taxes, allows a credit against the federal tax of state death taxes paid, the death-tax-free state will not only have lost its former attraction, but unless it enacts a death tax equal to the federal credit, will be sacrificing revenues which are no additional burden on the taxpayer. The result of federal death tax policy which began in 1924 and continues to the present has been to bring the states into line in both the type of tax imposed and the severity of rates. This is a perfectly legal use of the federal taxing power, although its effect is quite evidently that of introducing a high degree of elasticity into the constitutional concept of federal and state governments, each supreme in its own area.

The reader will see an element of practical conflict between the federal government's responsibility to promote the general welfare and the denial of federal authority to compel uniformity of policy within the states. For matters of taxation and of governmental functions do affect welfare, and lack of uniformity in state policy makes for unevenness in welfare standards among the states. The instruments of grants-in-aid and tax credits make the decision of the states to fall in line an easy one, though in matters of extreme im-

[13] *Cf.* Bittermann, *op. cit.,* Ch. XII.

portance to a state the possibility of independent choice of policy is still open and legally protected.

THE FEDERAL TAXING POWER

Bills for raising revenue must be legal in terms of the constitutional limitations upon the taxing power. These limitations are: [14]

1. "Congress shall have power to lay and collect taxes, duties, imposts and excises, to pay the debts and provide for the common defense and general welfare of the United States; . . ." [15] This grant of authority is extremely broad. "General welfare" has been interpreted so liberally by the Court as to include the welfare of relatively small special classes. Nevertheless, the welfare objective, liberally interpreted, may not be used by Congress to accomplish objectives denied to it by the Constitution. Thus in the AAA case (1935) the Court held that with respect to the constitutionality of a tax on the processors of agricultural products for the purpose of paying benefits to farmers who reduced acreage, "We are not now required to ascertain the scope of the phrase 'general welfare of the United States' or to determine whether an appropriation in aid of agriculture falls within it. Wholly apart from that question, another principle embedded in our Constitution prohibits the enforcement of the Agricultural Adjustment Act. The act invades the reserved rights of the states. . . . The tax, the appropriation of the funds raised, and the direction for their disbursement, are but parts of the plan. They are but means to an unconstitutional end." [16]

2. ". . . all duties, imposts, and excises shall be uniform throughout the United States." [17] This applies, of course, only to *federal* revenue measures. It does not mean that the amounts collected from the various states by a given indirect tax must be equal; but simply that individuals and concerns, in whatever state they are located, are subject to tax rates uniformly established on taxable things uni-

[14] *Cf.* F. A. Ogg and O. P. Ray, *Introduction to American Government*, 6th Ed., New York, Appleton-Century, 1938, pp. 466-9.

[15] Article I, Section 8.

[16] *U. S.* vs. *Butler*, Jan. 6, 1936. Quotation from *House Document* No. 386, 73th Cong., 2nd Session, p. 9.

[17] Article I, Section 8.

formly defined. For example, a federal unemployment compensation tax is imposed on employers of eight or more employees who are employed by them at least twenty days per year, each day being in a different week. The rate of tax is uniform for all employers, in whatever state they may be situated, and the amount of tax paid is the rate times the wages of employees. Thus the amounts of tax paid by employers vary with the number of employees and the amount of wages paid to the employee. So long as the definition of employers subject to the tax, the tax rate, and the tax base are uniform throughout the United States, the constitutional requirement of uniformity is satisfied.

3. "No tax or duty shall be laid on articles exported from any state." [18]

4. The final constitutional limitation, "No capitation or other direct tax shall be laid, unless in proportion to the census . . ." is no longer significant. The only "direct" tax now used by the federal government is the income tax, which is permitted under the sixteenth amendment: "Congress shall have power to lay and collect taxes on incomes, from whatever source derived, without apportionment among the several States, and without regard to any census or enumeration." [19] The limitation would thus be effective only if the federal government wished to levy a direct tax on property. If there were a federal poll tax, it would presumably be levied according to the census, and thus would be legal. The automobile use tax (1942–1945) was not a direct tax on property (an automobile), but an excise on the *use* of that property. Thus use and not ownership of an automobile was the basis of the tax, and being an "indirect" tax it was not subject to the constitutional limitation here considered. (Since it was uniformly applied, this tax met the uniformity requirement for indirect taxes in (2) above.)

There appears to be a fairly widespread notion that it is illegal to utilize the taxing power for other than revenue purposes—that taxation for purposes of regulation is not permitted. Such is not the case. So long as the tax is within the limitations listed above and so long as the regulatory function contemplated is not denied by the

[18] Article I, Section 9.
[19] Effective February 25, 1913.

Constitution, Congress may use the indirect method of accomplishing regulation by taxation as well as the direct method of establishing rules of conduct. In 1865, Congress imposed a 10 per cent tax on the circulation of state bank notes. The effect, as well as the intention, of Congress was to tax state bank notes out of existence. It could have been done by direct legislation prohibiting their circulation, but Congress chose rather to use the tax method. In approving this method the Court said in part: "Having . . . , in the exercise of undisputed constitutional powers, undertaken to provide a currency for the whole country, it cannot be questioned that Congress may, constitutionally, secure the benefit of it to the people by appropriate legislation. To . . . [this] end, Congress may restrain, by suitable enactments, the circulation as money of any notes not issued under its own authority." [20]

RECOMMENDED READINGS

General:

Seligman, E. R. A., "Public Finance," *Encyclopaedia of the Social Sciences*, N. Y., Macmillan, 1934.

A useful treatment of the field of public finance, with considerable historical detail. Does not discuss the more recent broadening of the field to include the general economic consequences of stabilization policy.

Taxing power:

Shultz, William J., *American Public Finance*, Third edition, N. Y., Prentice-Hall, 1942, Chapters 8 and 9.

A highly recommended detailed discussion of this field. The material may be found in other editions of the book.

[20] *Veazie Bank* vs. *Fenno*, 8 Wall. 549 (1869).

CHAPTER 2

FISCAL ADMINISTRATION

THE BUDGET

The budget is the master financial plan of government. It brings together estimates of anticipated revenues and proposed expenditures, implying the schedule of activities to be undertaken and the means of financing these activities. In the budget fiscal policies are coordinated, and only in the budget can a unified view of the financial direction in which government is going be observed. Ideally the budget is a statement of careful estimates and honest intentions. In practice it is too often less than this.

The "executive budget," prepared by the chief executive (with the aid of the budget department or bureau) and presented to the legislative branch of government for adoption, is the preferred type of budget and is more commonly used by the larger governmental units. The alternative is a "legislative budget," prepared by or for a a committee of the legislative branch for adoption by that branch. Three arguments favor the executive budget: (1) the chief executive will be held largely accountable by the public for the results of fiscal operations during the fiscal period, whether or not he is in the main responsible, and is therefore entitled to present *his* budget, (2) one of the admitted functions of the chief executive in governments in the United States is that of recommending general governmental policy—charting the governmental course—for implementation or revision by the law-making branch, and (3) the largest share of expenditures will almost certainly be spent by agencies of the executive department of government. As will be seen,

presentation by the executive of the budget plan in no way encroaches upon the proper sphere of the legislature, since its proposals are made effective only by translation into law by the legislature.

The Budget and Accounting Act of 1921 [1] established the present federal budget system. It imposed upon the President the duty of transmitting the budget to Congress on the first day of each regular session. It created a Bureau of the Budget, first placed in the Treasury Department and in 1939 transferred to the Executive Office of the President,[2] to prepare the budget for the chief executive. The Budget Act defines the required contents of the budget in some detail, the more important of which are:

1. The President's estimates of the expenditures and appropriations necessary in his judgment for the ensuing fiscal year, except that estimates for the legislative branch of the government and the Supreme Court shall be transmitted to him and he shall include them in the budget without revision.
2. The President's estimates of receipts during the ensuing fiscal year, under
    a. revenue laws existing at the time the budget is transmitted, and
    b. revenue proposals, if any, contained in the budget.
3. The expenditures and receipts of the last completed fiscal year.
4. The President's estimates of the expenditures and receipts during the fiscal year in progress.
5. The amounts of appropriations, including balances of appropriations from prior fiscal years, available for expenditure during the fiscal year in progress.
6. Balanced statements of the actual or estimated condition of the treasury at the end of the last completed fiscal year, the fiscal year in progress, and at the end of the ensuing fiscal year if the financial proposals contained in the budget are adopted.
7. All essential facts regarding the indebtedness of the government.

[1] 67th Congress, 1st Session, Chapter 18. Approved June 10, 1921.
[2] By Reorganization Plan I, pursuant to the Reorganization Act of 1939.

8. Such other financial statements and data as in his opinion are necessary or desirable in order to make known in all practicable detail the financial condition of the government.
9. If for the ensuing fiscal year estimated receipts plus any prior surplus are less than the estimated expenditures, the President shall recommend in the budget new taxes, loans, or other appropriate action to make up the deficiency.
10. If the aggregate of such receipts and such surpluses is greater than estimated expenditures, he shall make recommendations as in his opinion the public interests require.

The scope of the budget's contents is indicated by the requirements listed above. It is designed to show the financial results of fiscal policy for the last completed fiscal year, the probable results for the current year not completed (since the budget is presented in January and the fiscal year ends June 30), and the President's recommendations concerning receipts and expenditures for the next fiscal year. It often should, but usually does not, recommend changes in revenue legislation. In recommending a fairly detailed schedule of expenditures it in effect recommends a desired scale of governmental activities. So far as the President wishes to change the scale of governmental activities—to add or subtract functions—his general policies are reflected in the budget and advocated in the budget message. The budget is thus the focal point of fiscal policy.

Preparation of the Budget [3] Preparation of the federal budget for the fiscal year beginning July 1 normally begins about July 1 of the previous year with the preparation by the operating agencies of their requests for appropriations. When estimates have been prepared, they are reviewed by the budget officer in the department having cognizance of the budget accounts of the agency. The budget officer may, and probably will, revise the estimates before they are sent to the Bureau of the Budget on or before September 15. The second review is made by the Bureau of the Budget, which is presumed to be thoroughly acquainted with the President's

[3] The information in this section is taken largely from E. F. Bartelt, *Accounting Procedures of the United States Government*, Chicago, Public Administration Service, 1940, pp. 94–9.

desired policy as to the scope of expenditures. The estimates as received from the Bureau of the Budget are therefore likely to be acceptable to the President and are placed in the budget. If the President's budget contains recommendations for new revenue legislation, these recommendations will likely have come to him from the Treasury, from members of Congress, or from others of his advisers. By the middle of January the budget document is completed, and is presented through the budget message to the legislative branch at the opening of the regular Congressional session.

The Federal "Legislative Budget" The Legislative Reorganization Act of 1946 introduced into the federal fiscal picture a curious creature officially called a "legislative budget." It is not a true budget, for it prescribes only "the maximum amount to be appropriated for in such year," without recommendation of the component parts of the total. This maximum amount established by the "legislative budget" is to be determined after "giving due consideration to the budget recommendations of the President," and supposedly may not be exceeded by the sum of appropriations under subsequent acts.

The budget provisions of the Act became effective in January, 1947. It is therefore impossible fully to assess its effects upon federal budgetary practice. The experience of early 1947, however, demonstrated serious weaknesses in the plan, and appeared to substantiate the fears of those who regard it as a general hindrance to sensible budgeting. In the first place, a proposed ceiling figure was said by a leader of the majority party to represent no more than an "intelligent guess," while a spokesman for the minority party claimed all that was done was to "pick a figure out of the air." Such results appear inevitable, as the figure must be determined early in the session to clear the way for appropriation acts. A second weakness demonstrated in 1947 was the temptation of the Congress (in this case the Congress and the President were of opposing parties) to reduce the total of the President's recommendations by the largest possible round sum. The two houses of Congress argued almost interminably over whether the President's total should be reduced by six billions or by but four and one-half billions. Apparently neither group was

able to demonstrate by what process of analysis of recommended appropriations it had arrived at its figure. In fact the legislative session ended, and all appropriations were made for the ensuing fiscal year, without enactment of the legally required expenditure ceiling. The law was ignored, partly because agreement on a ceiling would have been productive of intra-party disunity, but mainly because it became evident that individual appropriations must be determined upon before any sensible total figure can be set.

This suggests the basic weakness of the present federal "legislative budget" plan. The essence of expenditure budgeting is that the total of appropriations is derived as a sum of individual appropriations proper for the performance of desired functions. If the individual appropriations are reasonable, the total will be reasonable. But the federal "legislative budget" idea begins with a round sum legislated total which "looks about right" and proceeds to force individual appropriations into that total.[4] The committees which did preliminary work on establishment of the ceiling in 1947 claimed it to be but an "overall objective" which imposed no strict compulsion upon the Congress. It appears that at best the plan would represent only a waste of Congressional time and effort; at worst it could place the budget in a strait jacket which vitiates the budgetary purpose of directing the expenditure of public funds toward realization of a maximum of national welfare. Since the Congress determines appropriations in any case, with the President's budget as a guide, it is difficult to see any real advantage in the "legislative budget" complication.

Legislation of the Budget: Appropriations Upon receipt of the President's budget by Congress, and presumably after establishment of the "legislative budget" ceiling, the various expenditure recommendations are sent to the appropriate committees for study and recommendation. These committees may conduct hearings, calling representatives of the various spending agencies

[4] A proposed Senate amendment to the Reorganization Act would have "solved" the problem of fitting individual appropriations into the approved total by keeping a cumulative total of legislated appropriations and ringing a gong when the ceiling had been reached. (*Cf.* John D. Morris, "New Budgetary System Undergoes First Test," The New York *Times*, March 2, 1947.) Presumably at that moment all appropriation activity would cease.

to justify their requests. Eventually the appropriation bills are "reported out" of committees and debated and voted on by the legislative houses. When passed by both houses they are sent to the President for signature, after which they become law. The time elapsing between presentation of the budget to the Congress in January and signature of appropriation bills by the President depends upon the length of time required to get the bills through Congress. In 1942 (for the fiscal year ending June 30, 1943) the first appropriation act became law on June 8, while the last was signed on July 22, after the beginning of the fiscal year. The others appeared between these dates.

There is no formal acceptance or rejection by Congress of the President's budget as a whole and without change, even assuming the total to be identical with the "legislative budget" ceiling. The degree of acceptance is indicated by comparison of the revenue and appropriation bills passed with the amounts recommended in the President's budget. In England the budget is presented by the Chancellor of the Exchequer, representing the Prime Minister's government. If an issue is made of the budget, the government stands or falls on the formal acceptance or rejection of the budget by the House of Commons.

Legislation of the Budget: Revenue Measures The Constitution requires [5] that all bills for raising revenue originate in the House of Representatives, the principle being that measures of such importance to the welfare of citizens should be required to pass first that legislative body which is the largest and most representative of the people before it can proceed on its way toward becoming law. In recent practice, however, original passage by the House has often been little more than a formality. Confused and admittedly inadequate revenue bills have been voted simply to set the ball rolling. The bill then goes to the Senate, where Finance Committee hearings are conducted. A bill is then reported out to the Senate and is debated and probably revised on the Senate floor. The Senate bill, probably quite different from that passed by the House, is then put in shape by Conference Committee, composed

[5] Article I, Section 7.

of members of both houses, for passage by both the Senate and the House of Representatives before it can be sent to the President for signature.

In our discussion of the course of the budget from preliminary estimates to final appropriations and revenue measures we have perhaps overemphasized the formal aspects of budgeting. This has been done to counteract the too-common presumption that the sum of expenditures or revenues results in purely haphazard fashion from individual and unrelated acts of Congress. This is not the case. On the other hand, in the process of legislation of the budget there are many informal pressures brought to bear. Established governmental agencies recognize that effective working relations with the legislative branch pay off in appropriations. Specific requests for information from legislators are given early and devoted attention, cultivation of legislative leaders by executive agencies is part of their job, and favorable treatment of persons or groups with whom the agency has dealings will normally line up these groups in support of adequate appropriations. In this respect the new and unsophisticated agency may suffer because it has not learned how to win friends and influence legislators.

PROBLEMS OF THE BUDGET

The earlier pages of this chapter have shown the procedures in creation of the executive budget, and in its transformation into fiscal legislation by the legislative branch of government. The budget system is set up to provide a maximum of thoughtful and purposeful control of receipt and expenditure operations. It presumes competence on the part of both governmental branches concerned with it. But the budget system, containing flexibility and wide latitude for the exercise of competent judgment in fiscal policy, allows equally wide latitude for the exercise of bias and incompetence. If the principle of democracy in government is sound, then the principle of the budget as an instrument of democratic fiscal planning is sound. It does not follow, however, that any particular budget practice is immune from criticism, or that one type of budget practice is not superior to another. In the following para-

graphs, the more important problems relating to the budget and some practices which are destructive of good budgeting are briefly considered.

Measurement of Administrative Efficiency There is little room for disagreement on the proposition that whatever government does it should do efficiently. This generally means that governmental functions should be performed as cheaply as the standard of performance required will allow. It does not mean that the amount paid to a direct relief recipient must exactly equal that amount which wards off starvation. But it does mean that administratively the maximum possible amount of an appropriation for relief should reach those whom it is intended to benefit, and the minimum possible amount should be dissipated in administration or waste. If government is embarking upon a program of extraordinarily heavy spending in order to inject purchasing power into the economy, it is presumed that those funds should be so directed as to have their impact at certain points in the economy. In this case efficiency implies that the maximum possible amount of the money used find its way to those points, and not be wastefully lost en route.

Granted the ideal of efficiency, how can the budgetary authorities or the legislative authorities measure administrative efficiency? When governmental activities are as highly specialized and technical as they now are, how can the President, the Budget Bureau, or the Congress measure the degree of efficiency in administration of the various activities? In general the administrator of the activity, who presumably knows his activity better than anyone else, is in the best strategic position to bring about efficiency. And for the same reasons his position is most strategic for measuring efficiency, although his judgment may well be conditioned by the fact that his agency is largely his creation and therefore he either cannot or will not see its inefficiencies. If each administrator were to be given the final judgment on the efficiency and the requirements of his agency, the budget would be constructed on the unamended original estimates of the spending departments. This would in fact amount to complete renunciation of their position by the budgeting authorities.

Clearly it is imperative that the budget department or bureau be provided with competent and specialized personnel who become intimately acquainted with the operation of particular agencies. For instance, in the budget department of a state government should be at least one budget examiner who is an expert in highway engineering and the administration of the highway department. He then becomes a specialist in the operations of that department without being a member of it. He can thus be an impartial and competent judge of efficiency in the expenditure of highway funds; he can recommend, through his chief, specific allocation of appropriations which will bring about desired changes in the department's expenditures. He must possess two qualifications for his job: intimate knowledge of the agency whose budget requirements he is to examine, and cordial independence of the chief of that agency. Such a competent and specialized examiner or officer is required for each of the larger spending agencies; it is both infeasible and less important that those agencies whose expenditures are small be examined to the same degree.

Budget Recommendations of Revenue Measures By the Budget and Accounting Act of 1921, if the budget for the ensuing fiscal year indicates a deficit, the President is required to "make recommendations to Congress for new taxes, loans, or other appropriate action to meet the estimated deficiency."[6] In recent years of consistent deficits, the President has met this requirement largely by recommendation of loans to cover deficiencies.[7] To a certain degree this has been inevitable, since tax changes could hardly have eliminated deficits of such magnitude even had there been desire to do so. Nevertheless, the federal budget has become a detailed and forceful recommendation of expenditures, with far less guidance in matters of raising revenue and in improvement of existing revenue measures. This is unfortunate, since the budget becomes largely an expenditures budget and Congress flounders in revenue legislation far more than if leadership were effective in this field. On the side of revenue recommendations, budget practice in

[6] U. S. *Stat.*, 67th Congress, 1st Session, Chapter 18, p. 21.
[7] President Truman, in the budget for fiscal 1947, recommended in effect that the deficit be met by a reduction in the cash balance of the treasury.

the federal government of the United States is inferior to that in England.

General vs. *Specific Appropriations* Reasonable compromise should be maintained in appropriation acts between general appropriations which allow freedom of the agency to allocate funds to specific projects, and appropriations which are so specific as to prevent adjustment to changing conditions. The principal argument for general appropriations runs in terms of the more advantageous position of the administrator than that of Congress for determining proper allocations of funds. The argument for specific appropriations calls attention to the fact that general appropriations inevitably grant a degree of legislative power to the administrator, and when carried to excess, largely vitiate the principles of budgeting. The proper type of appropriation lies somewhere between the two extremes, and conditions will determine whether it lies nearer the one or the other. However, normally the act should be at least specific enough to detail lump sums for salaries, travel, printing, supplies, equipment, and such general categories.

In time of war, appropriations for the military branches of government are made very general. A large part of such appropriations is to be spent approximately a year following the enactment of the appropriation law, and no Congress can possibly predict with much accuracy the directions which the war will take. The general staff may find one weapon wholly unusable, because of change in location of the battlefield or the development of counter-weapons by the enemy, while an entirely new weapon may promise such success as to warrant heavy production. In addition, for reasons of security, highly specific appropriations in public documents may be unwise. It would clearly have been unwise for Congress to have spelled out in specific detail the purposes for which funds were granted to atom bomb projects during World War II.

On the other hand, the specific appropriation has often been used by the legislative branch as a tool to limit the growing power of the chief executive or an executive agency. If agency regulations are believed to usurp legislative authority or to misinterpret the intent of Congress, specifications in that agency's appropriation act

may bring it into line. Congressional fear of, lack of confidence in, or lack of cordiality toward the executive branch will be likely to lead Congress to spell out in greater detail the uses to which appropriated funds may or may not be put.[8]

Inadequate Veto Power When both houses have passed a legislative act by at least simple majorities, the act is sent to the President for approval. If he approves, the act becomes law. If he exercises his veto power, the act is sent back to Congress, and may become law only when passed by two-thirds vote of both houses.[9] The President, however, may approve or veto only the whole act; he may not approve some sections and veto others. If an appropriation act contains undesirable provisions, he must weigh the undesirability of legalizing these provisions against the desirability of making the appropriation effective. If he vetoes the whole bill, Congress may pass it over his veto, and at the very least the appropriation bill is delayed. If he accepts the bill, he takes the bitter with the sweet. Particularly unfortunate is the "rider," a provision in a bill, often largely unrelated to the bill itself, and incapable of passage on its own merits, which hopes to "ride" through the Congress and the executive on the back of needed legislation.

Whatever the verdict on other grounds, presidential power to veto sections of bills while accepting other sections would help to improve the effectiveness of the budget. This would strengthen the President's hand in seeing his budget through to fruition in legisla-

[8] Note, for instance, the following provisions of the Office of Price Administration Appropriation Act for the fiscal year 1945:

". . . No part of this appropriation shall be directly or indirectly used for the payment of the salary or expenses of any person who directs the formulation of any price policy, maximum price or ceiling . . . unless . . . such person shall be qualified by experience in business, industry, or commerce . . ." (This provision was directed against "professors" in OPA.)

". . . none of the funds appropriated in this Act shall be used to pay the salary or expenses of any person fixing maximum prices for different kinds, classes or types of processed fruits and vegetables which are described in terms of specifications or standards, unless such specifications or standards were, prior to such order, in general use." (Directed against grade labeling.)

U. S. Stat., 78th Congress, 2nd Session, Chapter 304, June 28, 1944, p. 601.

[9] Ignoring the pocket veto, in which case the President takes no action within ten days and Congress adjourns prior to the expiration of this period. In this case the bill is dead and remains so unless initiated anew at a later session.

tion, and would seemingly not materially reduce legislative authority. Sections of bills vetoed by the chief executive could still be made law by passage over his veto. Thus Congress would still possess power to override objections by the President, but only when Congress is so sure of its desires that it passes the bill by a two-thirds vote in full view of the President's stated objections.

Deficiency Appropriations A deficiency appropriation is made after passage of the general appropriation act, designed to provide funds for projects for which no funds or inadequate funds have previously been voted. It was noted earlier in this chapter that appropriation bills have high priority on the legislative calendar, and are normally passed early in the session. Unforeseen functions may have to be undertaken later in the session, and other functions may be found to have been inadequately provided for. It is of the essence of good budgetary procedure that analysis, evaluation, and choice be substituted for rigidly strait-jacketed expenditure schedules. It is for this reason that the deficiency appropriation is an essential part of budgetary control.

In state governments, with biennial legislative sessions, appropriations are made for two-year periods. In such cases need for intersession provision of funds may frequently occur. But the principle is the same. Until executives and legislatures become omniscient there will be a place for the deficiency appropriation. Since state legislatures are usually in session only for a short period during the biennium provided for in the budget, deficiencies and emergencies are normally provided for by one of two methods: (1) allowing the Governor or budget officer to approve emergency expenditures in excess of appropriations while the legislature is not in session, and (2) appropriation of a lump sum contingent fund to be administered by the Governor and/or a commission of financial officers.

It is evident that, although provision for emergency appropriations is a necessary part of the budget system, loose and irresponsible use of them can threaten that system. If deficiency funds are appropriated to bail out agencies which have simply failed to live within their budgets for no reason other than prodigality or mismanagement, the budget has failed in its function. A loose, open-

handed system of providing for deficiencies may well do more harm than good.

Allotment of Appropriated Funds Most budget systems, federal and state, provide for quarterly, monthly, or other allotments of appropriated funds to the spending agencies. The primary reason is to maintain operations at a fairly stable level throughout the budgeted period. It guards against expenditure at so rapid a rate at the beginning of the period as to stop activity of the agency toward the end or to bring the agency in for a deficiency appropriation. On the other hand, it discourages excessive fear-inspired frugality during the early months of the period, followed by possibly wasteful expenditure at the end.

Allotments are generally administered by the budget department. Obviously the schedule of allotments to the agency during the budgeted period should be tailored to the normal needs of the agency. A highway appropriation should not be allotted in equal monthly installments in latitudes where construction and repair of highways can be carried on during only a portion of the year; allotments should follow the seasonal curve of activity.

Dedication of Revenues to Special Funds Probably the worst danger to good budget practice in state governments is the dedication of particular revenues to particular funds, from which particular activities are financed. By this system, income is channeled into any number of pocketbooks, large and small, with little opportunity for transfer between pocketbooks. The state treasury is thus not a single treasury, into which receipts are covered and from which payments are made according to a budgetary schedule of planned distribution. It is a miscellaneous group of more or less independent treasuries.

At the center is the general fund, which must support the general functions of government, largely support emergency expenditures, and stand ready to make up deficits in other funds. Next is the highway fund, supported by gasoline taxes, motor vehicle registration fees, operators' license fees, and miscellaneous receipts from automobile dealers' and repairers' fees. The highway fund supports the construction and maintenance of highways, the state police, and the various motor vehicle regulatory activities.

Trailing off from the two largest funds mentioned above may be fifty or sixty special funds of various sizes, some so small that the activities they support may spend less than a thousand dollars per year. The larger of these funds will probably be dedicated to the financing of welfare activities such as old-age assistance and of state universities and colleges. The smaller may administer the examination of barbers, of hairdressers and cosmeticians, or of embalmers.

The system of financing by funds to which particular revenues are dedicated has grown up through pressure from two directions: from the federal government in connection with grants-in-aid, and from particular classes of tax- and fee-payers. In connection with its grants for highway construction, matched by the states, the federal government has exerted strong pressure upon the states to dedicate gasoline tax revenues to highway construction and maintenance. There appear, however, to be possibilities of changing this arrangement if the states really wanted to do something about it, which it appears they do not under pressure from automobile tax- and fee-payers.

Public campaigns, with signs, stickers, speakers, and literature against "diversion" of gasoline taxes and automobile fees from highway to general use, have been common throughout the country. They are inspired by business groups—automotive trades groups, gasoline dealers, automobile associations, etc.—which stand to gain from more and better highways, and their arguments make enough sense to gain the support of a large majority of citizens. As matters stand, the term "diversion" implies governmental stealing from motorists, and not, as it should, the appropriation of one of the states' richest sources of revenue for the particular benefit of the motorist class.[10] In one state the governor proposed in his budget message that several of the state boards examining the qualifications of potential entrants into various professions be merged, that examinations be set and judged by professional men but that ad-

[10] It should be mentioned, however, that in many cases gasoline taxes and fees imposed upon motorists were originally legislated on the promise that their revenues would be used for highway purposes. In such cases the cry of "diversion" has a reasonable basis.

ministration be centered in one commissioner. The suggestion was quickly defeated, largely under the leadership of the state medical society, which publicly decried "political" interference in the determination of qualifications of doctors. Basically the issue was whether professional fees should be covered into the general fund and administered under the budget system.

Budget procedure under a system of financing by funds with dedicated revenues becomes largely a formality. The budget simply recommends appropriations for the agency equal to anticipated revenues. Transfer of surplus money from one fund to another ("diversion") is normally very difficult, with the consequence that the general fund often loses but seldom gains. The general fund must make up deficits in special funds, but seldom receives surpluses from them. Thus, real budgeting applies only to the general fund, which probably covers between one-third and one-half of the total expenditures of the state.

The results produced by this system are curious, and at times fantastic. The actual results of a year's fiscal activity can be learned only by determining the algebraic sum of the surpluses and deficits of many funds. The result is then largely meaningless, because of the non-transferability of surpluses from one fund to another. In one state it was necessary to borrow several million dollars to cover a general fund deficit. This borrowing was necessary in order to pay back to the highway fund amounts which it has been unable to spend in previous years and which it had temporarily lent to the general fund.

The nature of the solution to the problem is clear, though its obstacles in public opinion are equally clear. Everyone is in favor of effective budgeting in the abstract, and yet few favor abolition of a practice which makes really effective budgeting impossible. Not all special funds could be eliminated. For special reasons the sinking fund—for retirement of debt—should be segregated. Legal restrictions require that certain trust funds be segregated. And special functions such as old-age insurance and unemployment compensation as now in force must be segregated from general functions when collections are in the nature of premium payments to a dedicated reserve fund. All other receipts should go to the general

fund, and all other payments made from it. Only then can budget unity be approached.

The logical extension of dedication of gasoline taxes for highway construction, doctors' fees for the benefit of the medical profession, and hairdressers' fees for the benefit of hairdressers is the dedication of tobacco taxes for the particular benefit of smokers, liquor taxes for the particular benefit of drinkers, and property taxes for improvements to property. In the final stages of such dedication, relief payments must cease because the indigent cannot pay their way; the legislature, the courts, and the executive, if they are to continue to exist at all, must produce services for a ready market. The budget department can be dismissed, since "earmarking" has relieved it of any duties.

WHEN IS A BUDGET BALANCED?

Balance an Accounting Concept Much public discussion has centered around "balancing the budget" but much disagreement is found—in full view of the figures—as to whether a particular budget is balanced. The "balance" of the budget is an accounting concept and requires some elemental understanding of the purpose and basic characteristics of government accounts.

The prime function of government accounts is to demonstrate to those responsible for fiscal policy, and to the public, the results of past fiscal operations. Estimates for the future should be presented under the same accounting and reporting classifications. This implies that financial statements be presented in an understandable form, and that the budgeting and accounting agencies exercise care that items are properly classified. Proper classification involves consistent recognition of the objective of accounting and reporting—portrayal of the condition of the finances resulting from fiscal operations.

A balance sheet approach, showing assets and liabilities of government, is useless for this purpose. The principal liabilities of government would be its outstanding debt, representing legal claims of others against the treasury. The assets of government would certainly include its cash on hand, but beyond this, assets have relatively little meaning. A value could be assigned to public buildings

and government-owned equipment, but these "assets" do not exist for earning income and are not real assets in the customary sense of the term. They exist for government consumption, and can obviously not be used as offsets against debt liabilities to demonstrate the condition of the treasury. There may be those who would list the taxpaying capacity of the citizens as an asset of government. The valuation of this "asset" would be arbitrary and meaningless for any useful purpose in accounting. Since government is essentially a consuming agency and not a producing business, the balance sheet can produce no useful information.

But it is important to know the relation of income to outgo during a given period. This relation will show whether fiscal policy has resulted in surplus or deficit; it will indicate the direction in which the treasury is moving. This is the kind of fact which is needed in the charting of future fiscal policy.

Definitions of Basic Concepts The condition of the treasury is improved when net receipts exceed net expenditures over a period of time. The basic categories of income and expenditure may be defined as follows:

1. *Revenue receipts are receipts which increase the usable funds of the treasury without increasing its debt obligations; or which reduce its debt obligations without reducing its usable funds.* They improve the net condition of the treasury.
2. *Cost payments are payments which reduce the usable funds of the treasury without reducing its debt obligations.* They worsen the net condition of the treasury.
3. *Non-revenue receipts are receipts which increase the usable funds of the treasury, but increase correspondingly the debt obligations.* They are receipts which have no net effect upon the condition of the treasury.
4. *Non-cost payments are payments which reduce the usable funds of the treasury, but reduce correspondingly the debt obligations.* They are payments which have no net effect upon the condition of the treasury.

Most items of revenue receipts are covered in the first clause of definition (1) above. The second clause of the definition is in-

cluded for completeness to take care of taxes which are paid to the treasury by turning in treasury securities.[11] Revenue receipts include practically all receipts except those borrowed through the sale of treasury securities, and amounts which come into the treasury for special trust funds—such as retirement and insurance funds—and must be immediately transferred to those funds. The exceptions mentioned in the previous sentence are non-revenue receipts.

Cost payments include practically all payments except those used for retirement of debt and transfers to special trust funds such as those mentioned in the paragraph immediately above. It is to be noted that interest paid on the public debt is a cost payment, while payments of the principal of the public debt are non-cost payments. This follows from the definitions.

Receipts are classified as revenue or non-revenue solely on the basis of their nature as receipts—those which increase treasury funds without equally increasing obligations are revenue receipts; the others are non-revenue receipts. Likewise payments are classed as cost or non-cost solely on the basis of their nature as payments—those which reduce treasury funds without equally reducing obligations are cost payments; the others are non-cost payments. The source of funds received or paid is not to be considered; only the effect on the treasury's condition is significant. Thus, funds raised from income taxes (revenue receipts) may be used for debt repayment (non-cost payments), while borrowed funds (non-revenue receipts) may be used for purchase of office supplies (cost payments).

If the concepts above are properly understood, the question "When is a budget balanced?" can be correctly answered by the following propositions:

A budget is balanced if during the budget period revenue receipts are exactly equal to cost payments.

[11] Treasury Tax Series Notes were first sold in 1941. They were acceptable by the Treasury in payment of income, gift, and death taxes, accomplishing two purposes: (1) they provided securities in which taxpayers could invest funds accumulated for tax payments at interest, and (2) they made funds available to the Treasury prior to tax date. *Cf. Annual Report of the Secretary of the Treasury*, 1943, p. 55. Government bonds have regularly been acceptable in payment of federal death taxes.

If revenue receipts for the budget period are greater than cost payments, the difference is budget surplus.

If revenue receipts for the budget period are less than cost payments, the difference is budget deficit.

Two general types of non-revenue receipts have been mentioned: receipts from borrowing and receipts for the account of special trust funds. From a common sense point of view the latter cannot enter into determination of surplus, deficit, or budget balance because the treasury never had real title to them and they therefore did not increase the usable funds of the treasury. The former were necessary *because of* a budget deficit, and thus do not enter into determination of that deficit. Similarly, two general types of non-cost payments have been mentioned: repayment of debt and transfers to special trust funds. The latter cannot enter into determination of surplus or deficit because their transfer cannot worsen the condition of a treasury which never had real title to them. They were from the start dedicated to trust funds and thus were never usable funds. Net repayment of debt [12] becomes possible *because of* a treasury surplus; it cannot enter into determination of surplus or deficit.

It should be quite apparent that nothing is to be learned with respect to budget balance by comparing total receipts (revenue plus non-revenue receipts) with total payments (cost plus non-cost payments). Except for minor time-adjustments, such a comparison would always show the budget in balance, no matter how large the true surplus or deficit. And to the extent that any non-revenue receipts or non-cost payments are allowed to creep into surplus or deficit determination the picture of surplus or deficit will be distorted and incorrect.

MULTIPLE BUDGETS

The function of the budget is to make fiscal control and planning possible. This being the case, the more comprehensive

[12] If, as in not uncommon, a treasury is required by law to retire some debt each year, debt may be retired in years when a deficit is incurred. The same thing occurs when debt matures in a year of deficit and thus must be replaced by new borrowing. In these cases the treasury borrows new funds to pay off old loans, and to the extent this is done there is no "net repayment of debt." It uses non-revenue receipts to make non-cost payments.

the budget, the more it brings into one unified picture past fiscal performance and future fiscal plans, the better it will perform its function of control. From time to time suggestions have been made recommending that more than one budget be prepared, presenting in each the facts and recommendations concerning the financing of specialized functions. Two of these are described and considered briefly below.

Ordinary and Emergency Budgets In periods of war, depression, and similar emergencies when the pattern of receipts and expenditures is inevitably greatly altered, it has been recommended that two budgets be prepared. The ordinary budget would present the budget for functions which are relatively permanent and are therefore "ordinary" functions. The emergency budget would present data for functions of an emergency character and therefore presumably of short duration.

In 1933 the federal government of the United States began the practice of segregating in its budget summaries the "general" and "emergency" expenditures.[13] The administration was charged with "trickery" in such segregation so as to hide the extent of "wasteful" expenditures. The "trickery" supposedly lay in the transfer of certain expenditures of long standing into the emergency category. Whatever the truth, and Sundelson appears to absolve the government of any intent to deceive,[14] this separation of items into separate categories did not create two budgets and was thus not a true example of multiple budgeting. It was a separation within the budget summaries and financial reports of the "ordinary" and "emergency" expenditures, for whatever value such separation might have in understanding fiscal policy. All expenditures were budgeted as usual, and all were handled in the single comprehensive budget.

It is impossible to see any real advantage to double—or multiple—budgeting in emergencies. Whatever advantages there are in the segregation of usual and unusual expenditures can be accomplished as well by summarizing the items in a single, comprehensive budget

[13] See J. W. Sundelson, *Budgetary Methods in National and State Governments* (Special Report of the New York State Tax Commission, No. 14, Albany, 1938) for excellent material on extraordinary and crisis budgets. (Chapters 13 and 14.)

[14] *Ibid.*, p. 180 ff.

in such a way as to point out the unusual character of certain expenditures. The disadvantages are several. Multiple budgets of this type may result in applying the normal drives for efficiency, which the budget is supposed to implement, only to the ordinary budget. They create an atmosphere of suspicion of the motives of the budgeting authority which is likely to give rise to intra-governmental ill-will and waste of time and effort. Furthermore, multiple budgets tend to obscure the true results of fiscal operations by scattering the results among several documents. The Agent General for Reparations describes the German multiple budget system in 1927 as follows:

"The budgets are presented in a manner that makes it quite impossible, even for well-informed readers, to follow them without exhaustive study and analysis. The budget as a whole contains many transfers from one budget to another; all of which tend to create confusion and to complicate the accounting."[15]

Ordinary and Capital Budgets It has often been recommended that governments set up, in addition to ordinary operating budgets of current receipts and expenditures, capital budgets. The capital budget would include capital expenditures for important items of public construction and for publicly owned commercial enterprises. It will be noted, however, that strictly speaking a public building is more in the nature of a durable consumers' good than a capital item.

The general theory of segregating activities in the nature of public construction in a separate budget runs in terms of the nonrecurring nature of such expenditures. Being extraordinary expenditures, normally financed by borrowing, it is regarded as unfair that they should be allowed to produce deficit in the general budget. Inherent in this view is the feeling that the thing that counts is whether the ordinary budget is balanced. If the ordinary budget is balanced, borrowing to finance public works becomes somehow easier to take. This view exalts the significance of a "balanced budget" and ignores the simple fact that the budget is the fiscal plan. If, therefore, public works expenditures are desirable they should

[15] Quoted in Hugh Dalton and others, *Unbalanced Budgets, A Study of the Financial Crises in Fifteen Countries,* London, Routledge, 1934, p. 23.

be planned through the general budget, even though a general budget deficit is thereby created. It is difficult to see how anything of real value is to be gained by the segregation of "capital" items into separate budgets. There is the usual danger, however, that segregation will divert attention from these extraordinary expenditures, and that those concerned with general fiscal planning (including the public) will be lulled into a comfortable somnolence by the calming fact of a balanced "ordinary" budget.

The same conclusions can be drawn with respect to creation of special capital budgets for government-owned commercial enterprises, such as light and water systems. There is, of course, reason for separate accounting within the agency itself, to show the detailed relations of receipts and expenditures, and the results of operation with respect to general policy as to whether the enterprise shall operate at cost, at a surplus, or at a deficit. Its revenues are, however, public revenues and its expenditures public expenditures. And provided the items are properly identifiable in the general budget, the receipts and expenditures of public enterprises should be subject to the same type and degree of planning as are any other receipts and payments.

OTHER AGENCIES OF FISCAL ADMINISTRATION [16]

The budget being the central planning and control instrument in fiscal administration, it is proper that it be given major attention in a study of fiscal agencies. There are however, other agencies participating in fiscal operations, though their participation is rather at the routine administrative level and less at the policy-determining level.

The Treasury The functions of the treasury department are primarily those of receiving, paying, and safekeeping of government funds. It is of course true that in our federal government, the Treasury being one of the executive departments, with its head a member of the President's cabinet, many advisory functions involving research will be performed.

[16] An excellent detailed factual account of the functions of agencies discussed in this section is to be found in E. F. Bartelt, *Accounting Procedures of the United States Government*, Public Administration Service, Chicago, 1940.

Treasury recommendations regarding revenue legislation may actually become law through their inclusion in the President's budget recommendations and passage by Congress. After a revenue measure becomes law it is the duty of the Treasury to administer it. This involves organization to collect revenues, accounting for revenues received, and provision for safekeeping of government funds. The latter is accomplished by making deposits to the government's account in banks of the Federal Reserve System.[17]

If expenditures during a period exceed tax receipts by more than the amounts which can be spared from the Treasury cash balance, the Treasury is authorized to borrow. The limits to this authority are at any given time established by the legal debt limit which Congress has authorized. Within the debt limit, however, the Treasury's authority to borrow follows from the fact that the revenues it receives result from revenue measures passed by Congress and the payments which it makes must have been authorized by appropriations made by Congress. Borrowing by the Treasury thus conforms to the plans of Congress as expressed in fiscal legislation.[18]

Payments by the United States Treasury are made according to

[17] Unfavorable public and government reaction to private banks led to the establishment in 1846 of the Independent Treasury System. By the creation of "subtreasuries" in larger cities, safekeeping of public funds in government vaults independent of the banks was provided. This move was based upon the narrow assumption that safekeeping was the principal function performed for the Treasury by the banks. The critical weakness of the Independent Treasury System appeared during the Civil War when it was recognized through bitter experience that floating and managing the public debt required far closer contact with the money market than an independent treasury could have. It subsequently became increasingly evident that the collection and disbursement of public funds could be effectively performed only by using existing banking institutions. The Independent Treasury System thus failed because of failure to recognize the actual and necessary integration of the public and the private economies. After the Civil War the Treasury became decreasingly "independent," and the subtreasuries became principally vaults. In 1920 provision was made for final elimination of the subtreasuries.

[18] Under the Legislative Reorganization Act of 1946, when Congress establishes the expenditure ceiling above the level of estimated receipts it must by concurrent resolution authorize borrowing to the extent of the difference. Thus a more formal grant to the Treasury of authority to borrow is contemplated. Apparently, however, the purpose of this provision is to impress upon the Congress the seriousness of appropriation in excess of receipts. If Congress votes a budget deficit it must publicly admit this fact by formal vote.

the following routine: Appropriations having been made by Congress, the Treasury notifies the spending agency of the amount of its appropriation. The agency then submits a schedule of allotments of this appropriation through the year to the Bureau of the Budget. When approved. the agency may incur obligations for a given period only to the extent of its allotment for that period. These obligations, before payment, must be approved by the Comptroller General (see below). When so approved, payment can be made by a Treasury disbursing officer, by drawing checks against the government's bank balance.

The Comptroller In the previous paragraph it was stated that payment must be approved by the comptroller before a check can be drawn. The principal function of the comptroller is to make certain that the expenditure conforms to the purpose for which the appropriation was made. He thus has a quasi-judicial function of interpreting the intent of appropriation acts. Because of this judicial element in his function the Comptroller General of the United States is appointed by the President for a term of fifteen years, making him, once appointed, independent of the chief executive. In state governments the officer performing the comptroller's functions is usually elected for a term equal in length to that of the governor.

Since the comptroller is presumably independent of the executive departments, his office usually performs the function of accounting control among the various agencies, maintains the basic government accounts, and audits the accounts of financial officers and agencies. In our federal government the General Accounting Office is under the administrative authority of the Comptroller General.

The Banks [19] Although the banks are not government agencies, they perform necessary functions for the Treasury. The Federal Reserve Banks hold the principal deposits of the Treasury.[20] They therefore receive moneys collected by the Treasury and pay checks drawn by the Treasury. In connection with the public debt, the Federal Reserve Banks receive applications from banks, dealers,

[19] See Federal Reserve Board, *The Federal Reserve System, Its Purposes and Functions,* Washington, 1939, pp. 35–6.

[20] A major exception during World War II was the placing of proceeds of war loan drives on deposit with the member banks of the Federal Reserve System. These special "war loan deposits" are discussed *infra,* Chapter 8.

and others, for new issues of government securities, and allot securities among these buyers according to Treasury instructions. The proceeds of sales are credited to the Treasury's deposit accounts. In addition the Reserve Banks redeem government securities, pay coupon interest, and perform other similar services. It should be realized, of course, that the Federal Reserve Banks perform these functions to a considerable extent through the member banks. The contacts which the Federal Reserve Banks have with the money markets make them valuable advisers of the Treasury in determination of the terms of issue of government securities.

RECOMMENDED READINGS

The budget:

Willoughby, W. F., "Budget," *Encyclopaedia of the Social Sciences,* N. Y., Macmillan, 1930.

Descriptive discussion, with special reference to the development of budget practice in the United States and in other countries.

Hansen, A. H., *Fiscal Policy and Business Cycles,* N. Y., Norton, 1941, Chapter 10.

Probably the best available short treatment of the subject. Discusses the literature on budget theory and multiple budgets, and introduces the generally recent approach to budget theory.

Sundelson, J. W., "Aspects of Budgetary Procedure," in Groves, H. M., *Viewpoints on Public Finance,* N. Y., Holt, 1947, pp. 661–68.

A short discussion of comprehensiveness of the budget.

Fiscal management:

Bartelt, E. F., *Accounting Procedures of the United States Government,* Chicago, Public Administration Service, 1940.

Much detail concerning the mechanics of handling governmental funds. Chapters to be used should be selected in terms of the subject or agency of interest.

Smead, E. L., "Operations of the Reserve Banks," in *Banking Studies,* Washington, Board of Governors of the Federal Reserve System, 1941, pp. 260–65.

Discussion of fiscal agency, custodianship, and depository functions of the Reserve Banks for the Treasury.

Most textbooks on money and banking will contain sections dealing with the relations between the banks and the Treasury.

CHAPTER 3

PUBLIC EXPENDITURES, TRENDS AND THEIR SIGNIFICANCE

EXPENDITURE TRENDS

Adolph Wagner, a German economist of the latter part of the nineteenth century, presented his famous "law of the increase of state activities" in these terms: [1]

> "Comprehensive comparisons of different countries and different times show that, among progressive peoples, with which alone we are concerned, an increase regularly takes place in the activity of both the central and the local governments. This increase is both extensive and intensive: the central and local governments constantly undertake new functions, while they perform both old and new functions more efficiently and completely. In this way the economic needs of the people, to an increasing extent and in a more satisfactory fashion, are satisfied by the central and local governments."

The statistics of expenditures throughout modern times demonstrate such persistent increase as to justify Wagner's statement of this fact as a "law." Nitti,[2] after careful study of expenditures in various countries as far back as acceptable statistics exist, concluded that centralized and decentralized governments, warlike and peace-

[1] *Grundlegung der politischen Oekonomie,* Bk. VI, ch. 3 (3rd ed., 1893), quoted in translation in C. J. Bullock, *Selected Readings in Public Finance,* 3rd ed., New York, Ginn, 1924, p. 32.

[2] F. S. Nitti, *Principi di scienza delle finanze,* 1903, pp. 64–100. Translated by C. J. Bullock and included in *ibid.*, p. 32 ff.

ful nations, large and small nations, show essentially similar tendencies toward marked increase, particularly during the nineteenth century. Had Nitti been able to include the first half of the twentieth century in his study, he could have shown not only a continuation but an acceleration of expenditure growth.

The figures in Table 1 show something of the growth of federal, state, and local expenditures in the United States for selected years since 1913.

TABLE 1 Expenditures of Federal, State, and City Governments, U. S., Selected Years, 1913–1945 [3]
(in millions of dollars)

YEAR	FEDERAL [a]	STATE [b]	CITY [c]	TOTAL
1913	725	383	984	2,092
1919	18,515	640	1,233	20,388
1923	3,295	1,208	2,361	6,864
1929	3,299	1,943	3,435	8,677
1933	3,864	2,067	2,464	8,395
1937	8,177	3,463	2,620	14,261
1941	12,711	5,551	2,259	20,521
1945	100,405	6,029	2,685	109,118

[a] Federal expenditure figures taken from *Statistical Abstract* and from *Annual Report of the Secretary of the Treasury, 1945.*

[b] State expenditure figures taken as follows: 1913, from National Industrial Conference Board, *Cost of Government in the United States,* 1925–6, p. 9; 1919, 1937, 1941, from Bureau of Census, *Financial Statistics of States;* 1923, 1929, 1933, from *Cost of Government in the United States*, 1934–6, p. 5; 1945 from Bureau of Census, *Summary of State Government Finances, 1945,* p. 3. In several respects the figures from the various sources are not exactly comparable, nor are they entirely comparable when taken from different annual volumes in a given series.

[c] City expenditure figures taken from *Financial Statistics of Cities* (1913–1937); *City Finances* (1941), and *Summary of City Government Finances* (1945). The statistics presented include only governmental cost payments. Cities included are those of over 100,000 population for the years 1933, 1938, 1941; other city statistics embrace all cities of over 25,000 population. County governments and other fiscally independent local subdivisions are not included, making the statistics for local governments the least satisfactory in the table.

[3] The figures in this table are to be taken as approximate; in some respects they are unsatisfactory, as indicated in the footnotes to the table. They do not include statistics of counties and other governments in the "local" category.

It may be argued that the period covered in Table 1 is a period of abnormal government expenditure, that in the space of thirty-two years it includes World War I, the period of protracted depression of the thirties, and World War II. That it is a period of emergencies of one sort and another may be granted; the presumption that these emergencies were abnormal is not so easily granted. It is devoutly to be hoped that war will prove to have been an abnormal characteristic of the first half of the twentieth century. But war does not directly affect the expenditures of state and local governments, which have demonstrated the common upward trend during this period. And the governmental activities which appeared during the period 1929–1936 only accelerated a trend previously evident. These new activities have become so generally accepted as proper in the governmental sphere that it is quite unrealistic to expect significant reduction in the future.

Two observations with respect to the figures presented in Table 1 can be made without raising serious questions of abnormality. They concern the level of federal expenditures during the twenties and the growth of state and local expenditures throughout the period. Between World War I and the "Great Depression" federal expenditures had reached a comparatively stable level considerably above that of the pre-war period. A not insignificant element in the higher post-war level is the inheritance from the war of increased prices of the things government bought. This will be discussed further below. Another element directly traceable to the war was the inheritance of a greatly increased public debt on which interest payments were required. But in addition, the scope of non-military activities was expanded during the war emergency, and such activities were by no means completely demobilized with the end of the war. Government and the public came out of the war conditioned to government participation in a larger scale of activities.

The second significant feature to be noted is the marked increase in state and local expenditures throughout the period covered in the table.[4] Again, a part of this is accounted for by the increase in the

[4] The table does not show a clear upward trend in city expenditures. The principal reason is that the number of cities reported was considerably reduced by an Executive Order of 1932 requiring that, as an economy measure, cities

price level. But aside from this factor state and local governments are not significantly affected by war. The increase in expenditures of such governments is accounted for largely by an increase in the standard of governmental living—the provision by governments for "the . . . needs of the people, to an increasing extent and in a more satisfactory fashion . . .", to use Wagner's words. Extension of the scope of government, as we shall see below, is one of the marked tendencies of modern times.

The trend of government expenditures gives a clearer picture of the field of governmental activities if certain adjustments and refinements are made in the dollar figures in Table 1. It should be evident that the *real* increase in government activities can be measured only by eliminating the effects of price changes—by expressing expenditures in stable dollar terms. Further, it is clear that extension of government services to a larger and larger population will cost more money even though the schedule of government services remains unchanged. Figures of per capita expenditures will eliminate the effects of simple population change. Finally, the extent to which increases in the scope of government services take place at the expense of former or potential services of the private economy can be roughly shown by relating government expenditures to national income. Such a relationship would indicate in a general way whether expansion of governmental functions has kept pace with the increase in the national living standard. These three adjustments of figures in Table 1 are presented in Table 2.[5]

under 100,000 population be excluded from the report. H. H. Villard (*Deficit Spending and the National Income*) quotes figures for all local governments rising to $6.72 billion in 1929 and hovering around $6 billion through the thirties.

[5] The reasons why the relation of government expenditures to the size of national income can at best be only a very rough measure of the governmental standard of living relative to the private standard of living will be clearly apparent after studying Chapters 4 and 5. For the present we may say that to the extent government expenditure *creates* national income the relation has a significance not of concern to us in this chapter. Thus, if an increase of 100 per cent in government spending causes an increase of 5 per cent in the national income, the ratios do have an important special significance. In this chapter, however, we are primarily concerned not with the causal aspects of government spending but with the reflection by them of the public's judgment of the direct benefits in utilities to be derived from governmental services.

TABLE 2 Total Expenditures in Current and 1926 Dollars, Per Capita Expenditures, and Total Expenditures in Current Dollars as per cent of National Income

YEAR *	1[a] TOTAL EXPENDITURES *(millions of current dollars)*	2[b] TOTAL EXPENDITURES *(millions of 1926 dollars)*	3[c] PER CAPITA EXPENDITURES IN 1926 DOLLARS	4[d] EXPENDITURES AS PER CENT OF NATIONAL INCOME *(current dollars)*
1913	2,092	2,997	30.82	6.28
1919	20,388	14,710	140.01	30.89
1923	6,864	6,823	60.94	9.59
1929	8,677	9,105	74.77	10.41
1933	8,395	12,739	101.43	19.84
1937	14,261	16,525	128.28	19.94
1941	20,521	23,507	176.48	21.19
1945	109,118	103,137	738.70	67.78

* The years selected are those in Table 1.

[a] From Table 1.

[b] Figures of Column 1 adjusted by Bureau of Labor Statistics index of wholesale prices. This is taken as the most useful of the various price indexes for purposes of conversion. Some inaccuracy enters due to the fact that expenditures are reported for varying fiscal years for various governments, while the price index is published on a calendar year basis.

[c] Computed by use of Census estimates from *Statistical Abstract*, 1946, p. 8.

[d] National income figures used were taken as follows: 1913, 1919, from National Bureau of Economic Research, *Income in the United States, 1909 1919,* N. Y., Harcourt, Brace, 1921, p. 13; 1923 from Harold Barger, *Outlay and Income in the United States, 1921-1928,* N. Y., National Bureau of Economic Research, 1912, p. 58; 1929–45 from various issues of the *Survey of Current Business.*

Column 2 of Table 2 translates total government expenditures for the selected years into dollars' worth in 1926. Thus, in 1913 governments would have spent $2,997 million instead of $2,092 million if they had been required to pay prices equal to those existing in 1926. This adjustment to 1926 prices indicates two facts with respect to total expenditures during the period: (1) Expenditures prior to the First World War show a scale of activities considerably larger when expressed in post-war dollars, and (2) activities during the low-price years of the thirties were considerably more extensive than they appear in terms of current dollars. It is well to keep in

mind the effect of change in the value of money upon the significance of expenditure figures while reading comparisons of the present level with those of earlier periods, for instance, a century ago.

Column 3 of Table 2, in addition to eliminating the effects of price changes as discussed in the previous paragraph, eliminates the influence of population change. This shows a very marked increase of real per capita expenditures for all governments between World War I and 1932. Reference back to Table 1 demonstrates that this increase is accounted for principally by the federal and local governments, though increase at the state level is too significant to be ignored. The rate of population growth between 1930 and 1940 was less than half that of the decade 1920–30. Thus, the adjustment to a per capita basis accentuates the greatly increased real expenditures of the thirties.

Calculation of the relation between government expenditures and national income will show something of the growing significance in the whole economy of government financial operations. In addition it gives a rough indication of the rate of increase in the standard of governmental living in relation to the rate of increase of the general living standard. In this sense it measures the change in the scale of government service with respect to change in the public's potential general scale of want satisfaction. Column 4 of Table 2 shows a gradual (excepting World War I) increase in the per cent of government expenditures to national income between 1913 and 1929; this ratio is almost doubled in 1933 and continues its slow increase to World War II. The moderate increase in ratio between 1933 and 1941 indicates that national income was rising only slightly less markedly than were dollar expenditures. One must be cautious in generalizing or in drawing hasty conclusions from the figures in column 4. National income relates to the nation as a whole and expenditures are those of government as a whole. The figures do not relate the income of particular individuals or groups to government expenditures on or services to the same individuals or groups. Nor is the income of individuals or groups related to taxes paid by or governmental borrowing from those individuals or groups. Conclusions with respect to specific benefit or specific cost to economic classes are therefore unwarranted from column 4.

Refinements of raw figures of total expenditures point to the following conclusions:

1. When figures of expenditure are adjusted for changes in the price level, real expenditures during the decade of the nineteen-twenties reveal a less marked increase over the pre-World-War-I years, while real increase during the decade of the nineteen-thirties is greater than is apparent from the raw figures.
2. Per capita real expenditures have moved in the same direction as have total real expenditures, the growth of population having been insufficient to adjust real expenditures downward during any period of significant duration.
3. The share of the national income represented by government expenditures has shown persistent increase through the period, even under peaceful conditions, while in war the share of income devoted to governmental purposes is gigantic.

From these conclusions we may draw the generalization that government has taken an increasingly significant place in the economy. The relative growth of government has, with minor exceptions, been persistent, though irregular in amount, from year to year.

The scale of governmental performance has expanded—as Wagner remarks—both intensively and extensively. Government has carried on certain functions throughout modern times, while new functions—out of choice or necessity—are added from time to time. The former, however, increase in coverage and quality to keep pace with the requirements of a society whose institutions change and whose standards rise. We shall discuss separately the intensive and the extensive expansion of functions.

INTENSIVE EXPANSION OF GOVERNMENTAL FUNCTIONS

Three governmental responsibilities of long standing are: provision of military protection against aggression, construction and maintenance of roads and highways, and provision of public education. These three functions to an outstanding degree account for the increase of public expenditures over time. Although defense, highways, and education in their modern forms are so different from

the same functions a century ago as to make them scarcely recognizable as the same functions, they are government's response to the demands for better performance of traditional functions.

Defense Expenditures Price movements have a peculiar influence upon war expenditures. Such expenditures are largely incurred during periods of war boom at high prices. Expenditures made during war out of current taxes reflect these high prices, but war debt also crystallizes these boom prices in the obligations of government carried into the post-war period. The debt is expressed in contracts drawn in terms of dollars, and its amount is not reduced by a post-war decline in prices. Furthermore, obligations in the form of pensions and bonuses tend to be established during the war period of high incomes and high living costs, and thus in peacetime continue to reflect war standards.

The cost of defense—all of those costs related to war—has increased phenomenally through history. It includes not only outlays for men, materials, and maintenance during and between wars, but also pensions and contributions to veterans, and interest on that part of the public debt contracted for war purposes. It should embrace also those non-military expenditures involved in control of and assistance to the civilian economy in wartime.

The progress of the military arts and sciences has been so rapid that the machines of war have become extremely expensive to purchase and the rate of obsolescence extremely high. Acceptance of the obligation by government to care for men and their families injured by war, and to provide benefits in the form of bonuses, education, and rehabilitation, has enormously increased the government costs attributable to war.

Few would deny that the maintenance of an adequate defense of the nation against aggression is a primary function of government. As indicated by the preamble to the Constitution, one reason for establishing a federal government was to "provide for the common defense." But "defense" in the modern sense recognizes the necessity of carrying even a defensive war beyond our own boundaries—meeting the enemy as far as possible from our own shores. Thus an adequate defense system implies very large, mobile military forces with great striking power and well-equipped advance bases.

An indication of the growing costliness of war in money spent is given in Table 3 below.

TABLE 3 Cost of Principal American Wars
(in millions of dollars)

Revolution (1775–1783)[a]	$ 113.6
War of 1812 (1812–1815)[b]	99.8
Civil War (1861–1879)[c]	6,190.0
Spanish-American War (1898–1901)[d]	275.0
World War I (31 months ended October 31, 1919)[e]	32,830.0
World War II (1940–1946)[f]	345,885.0

[a] From Shultz and Caine, *Financial Development of the United States*, N. Y., Prentice-Hall, 1937, pp. 46, 47.
[b] From D. R. Dewey, *Financial History of the United States*, 12th edition, N. Y., Longmans, 1934, p. 141. Figure includes War, Navy, and those interest payments in excess of expenditures for interest in 1812.
[c] Dewey, *op. cit.*, p. 329.
[d] Dewey, *op. cit.*, p 467. Includes only the excess of War and Navy expenditures, 1898 1901, over those of 1894–1897.
[e] *Annual Report of the Secretary of the Treasury, 1919*, p. 26.
[f] *Ibid.*, 1946, p. 400. An approximate figure representing total "War Activities" expenditures, veterans' expenditures annually in excess of those in 1940, and interest payments annually in excess of those in 1940.

The figures presented above do not include expenditures for military preparation between wars. Nor do they, except to a degree in the Civil War figures, include post-war expenditures which are in the nature of "aftermath of war" items. Notable among these post-war payments are mustering-out payments, bonus payments, and pensions. This has been a large and growing item as the nation has moved from one war to the next. "All-out" war has greatly increased the number of military personnel to whom such payments are made, and the trend has been toward more and more ample payments of these types, at both federal and state levels. Table 3 shows expenditures for World War I through October, 1919, to have been approximately 33 billion dollars. The estimated total of expenditures on World War I after payment of adjusted service compensation and other "aftermath" expenditures is 45 billion dollars.[6]

The National Industrial Conference Board calculates that be-

[6] See Alfred G. Buehler, *Public Finance*, New York, McGraw-Hill, 1936, p. 53.

tween 1789 and 1920, 78.9 per cent of total federal expenditures were made for war.[7] It is evident, therefore, that elimination of war offers by far the greatest possibilities for reducing federal expenditures. Curiously enough, the hard-headed "economy minded" legislators have attacked "bureaucracy" and the size of the civilian payroll of government, but have been very little concerned with programs for the promotion of peace. It is the "idealists" who have worked for peace against the tradition that war expenditure is inevitable.

Highways Since World War I the development of the automobile has both demanded and benefited from the advance in mileage and quality of highways. The development of superhighways and systems of through highways has been most spectacular, though improvement of rural roads, construction of cut-off highways to avoid residential and business areas, and elimination of grade crossings are important aspects of road development. Greater physical impact upon highways by vehicles of increased weight and speed has required heavier construction of new roads, and more frequent repair or abandonment of old and inadequate surfaces. Multiplication in numbers of vehicles using the highways, requiring wider surfaces, has added to the cost of construction.

The highway function is performed by state and local governments with considerable assistance from the federal government. In 1919 total expenditures of state and local governments for highway purposes amounted to 390 million dollars.[8] By 1921 they had increased to approximately one billion dollars, and in 1930 to 1.9 billion dollars. In 1937, with state and local treasuries severely strained, the expenditure remained at approximately the 1930 level (1.8 billion dollars).[9] The tasks of highway and road construction and maintenance have led to large grants from the federal to the state governments, and from state to local governments. The federal government has made its grants to states under conditions which

[7] National Industrial Conference Board, *Tax Burdens and Public Expenditures,* New York, 1925, p. 4.

[8] Henry J. Bittermann, *State and Federal Grants-in-Aid,* New York, Mentzer, Bush, 1938, p. 98.

[9] Alvin H. Hansen, *Fiscal Policy & Business Cycles,* New York, Norton, 1941, p. 123.

require certain standards of construction and maintenance. Pressure from the federal government has consistently supported the policy of dedicating motor vehicle revenues to highway expenditure. Federal grants until 1930 had required that they be matched dollar for dollar by state funds. In 1930, since states were having difficulty in qualifying for federal highway grants because of inability to match available federal funds, the federal government began advancing funds to states chargeable against future grants, with which the states could match current federal grants. If the policy had been carried out as planned, highway work would have been drastically curtailed in later years when the states would have been required to meet all highway expenses from their own funds. In 1934, therefore, Congress released the states from the necessity of paying back these advances, and the effect was to create outright gifts from the federal government unmatched by the states.[10] This was entirely in line with the federal policy of public works for depression relief and business recovery during the thirties.

The World War II period greatly reduced expenditures on highways, both because of reduced need during the rationing period and because of the unavailability of materials and labor for construction. The states thus emerged from the war with a backlog of needed highway construction and repair, and large highway fund surpluses accumulated during the war. Special highway funds are normally among those most richly supported, owing to the practice of federal grants and the dedication of motor vehicle revenues to highway purposes.

Education Public education at the primary and secondary level has been essentially a function of local government, while higher public education has been essentially a state function. However, great disparities in financial resources among local governments have required insistence upon consolidation of schools and standardization of the quality of public education performed by those governments. Improvement and standardization have occurred largely through state control, and have given rise to large educational grants from the states to their local governments. The inadequate productivity of the property tax (the local government revenue

[10] Bittermann, *op. cit.*, p. 99.

mainstay) has necessitated state aid, and in some states substitution of other taxes for the property tax has led to the institution of state taxes shared with local governments.[11]

TABLE 4 State and Local Expenditures for Education, Selected Years[12]

YEAR	STATE EXPENDITURES ($ millions)	STATE EXPENDITURES (% total expenditures)	LOCAL EXPENDITURES ($ millions)	LOCAL EXPENDITURES (% total expenditures)
1915	158	31.9	585	26.5
1923	382	29.1	1,715	37.3
1929	560	27.2	2,226	32.5
1938	888	22.2	1,418	25.2
1944	1,170	20.4	1,273	28.0

Two observations may be made concerning the trend of expenditures for education (Table 4). The first is that educational

[11] Federal aid to public education should not be completely ignored, for it is of growing importance. In the original federal cession of land to the states fairly large blocks were earmarked for schools. Subsequently, grants of land and money were made for the creation of "land grant colleges." In addition funds have been given by the federal government under various acts for the promotion of agricultural and mechanical education. During the thirties substantial amounts were spent by the National Youth Administration to help pay school and college expenses of needy students, and these NYA payments were quite generally made for performance of work for schools. In the post-World War II period federal payments to war veterans to support them in school, college, and job training are enormous, and of benefit to schools as well as to veterans. The post-war predicament of public education, due to rising costs and inadequate personnel, promises to result in federal programs providing substantial direct aid to local education.

[12] Figures for 1915–1938 from Simon Kuznets, "National Income and Taxable Capacity," *American Economic Review Supplement*, March, 1942, p. 69. The figures indicated for 1944 were calculated as follows: State figures include expenditures for operation of schools and libraries, and state-aid grants for schools. These were taken from *State Finances, 1944*. Local expenditures represent a combination of figures for various years. Education and library expenditures were taken for the year 1944 from *City Finances*. These include only cities with population over 25,000. To this figure were added county expenditures for education in 1943, the latest published *County Finances* being of that year, and expenditures of independent school districts for 1942, the latest available date (Finances of School Districts, 1942). From this total state aid grants were deducted, for they appropriately represent state rather than local expenditures.

functions have from an early date constituted a large element in the total of state and local expenditures. Prior to the modern importance of the highway and of relief and assistance activities, it was by far the most expensive single function of those governments. An unusual amount of public interest in schools has been consistently evident, for obvious reasons, and the educational lobbies have been among the most vigorous in states and cities.

The second observation points to the indicated decline in local expenditure for education between 1929 and 1938, a decline which is not offset by increases in state educational expenditures during the same period. There are several explanations of this decline. (1) The sad state of the finances, particularly of local governments, brought about rather naturally a significant decrease in expenditures on the very large item of education. (2) Federal funds were not made available for education, except work relief funds for construction of school buildings, and the states and localities were forced to depend upon their own inadequate revenue resources. (3) Educational expenditures are normally made from general revenues. In contrast to highway funds, with large and stable earmarked revenues, school expenditures came from those general funds which during the thirties were required to meet many extraordinary expenditures without being able to tap new revenue sources. (4) The depression philosophy of balancing the "ordinary" budget while the "emergency" budget was allowed to go far out of balance is probably a factor in the situation here discussed. School expenditures are a part of the long-run, ordinary expenditures. As revenues fell and need for emergency expenditures arose, the tendency was generally to pare ordinary expenditures to meet falling revenues and to borrow only for emergencies. Important as the emergency functions were, it is evident that the equally important educational function was not given equal treatment.

Urbanization A general cause of expenditure increase which possesses aspects of both intensive and extensive expansion of functions is the concentration of population in urban centers. Urbanization has increased per capita expenditures of local (and other) governments for the administration of traditional functions as these functions are related to a more concentrated popula-

tion. For example, it becomes impossible with population concentration to continue performance of police, street, or public education functions on the simple scale. If the police function is to be performed acceptably a highly specialized and expanded department is required. The function of public education becomes specialized, with technical schools, experimental schools, and the like. Relatively more and better streets are required, traffic control becomes imperative, repair is likely to be more frequent.

The conditions of urban life impose additional requirements upon government. Where people are crowded together, new functions must be undertaken. Considerations of public health and welfare force themselves upon local government. Inspection of food and the conditions of its distribution, investigation and programs for the promotion of public health, construction and maintenance of hospitals, clinical services to the underprivileged, playgrounds and organized recreation, and adult education are examples of public response to the needs of urban living.

It is possible to show by statistics the effect of urbanization upon per capita local expenditures, as will be seen in Table 5 below.

TABLE 5 Per Capita Average Expenditures of U. S. Cities of Various Sizes, 1942[13]

POPULATION GROUP	NUMBER OF CITIES INCLUDED	AVERAGE PER CAPITA GENERAL EXPENDITURES
Over 1,000,000	5	$72.69
500,000–1,000,000	9	62.84
250,000– 500,000	23	43.17
100,000– 250,000	55	41.23
50,000– 100,000	105	35.91
25,000– 50,000	200	34.19
10,000– 25,000	602	24.16
5,000– 10,000	918	18.14
2,500– 5,000	1,407	16.57
Under 2,500	12,896	11.22

A word of caution is in order lest the cynical temptation be indulged to ascribe to "graft," "corruption," and "inefficiency" the increase in

[13] Source: Bureau of Census, *Governmental Finances in the United States, 1942*, U. S. Summary, p. 8.

per capita expenditures as local governments progress in size. The real explanation doubtless runs in terms of more elaborate performance of "primary" functions and the necessity for provision of a wider range of services. There are many services which the larger municipality can perform for the citizen, and in the absence of performance by government the citizen would be required to perform them himself, probably less satisfactorily and at greater cost. Without doubt public water supply, sewage systems, public libraries, public health services, and the like, not only accomplish their objectives better, but at less social cost than would alternative individual attempts at self-sufficiency. There is undoubtedly greater opportunity for corruption and inefficiency as government becomes less personal and involves the handling of larger amounts of funds. On the other hand, these very characteristics of larger local governments make feasible the employment of experts in government. They also justify and recommend the institution of standards and programs for the selection of civil servants. Those scandals involving corruption in municipal government which make the news have generally occurred in the larger municipalities. The total funds involved, however, though in some cases large, are generally small in relation to total expenditures. In the matter of efficiency, it would be difficult to demonstrate that waste is proportionately less in small than in large municipalities.

EXTENSIVE EXPANSION OF GOVERNMENTAL FUNCTIONS

The rising standard of living in the public economy has more than kept pace with the increase in national income, as indicated in column 4 of Table 2. Governments at all levels tend to do more and more for their citizens. Since the citizens have requested—or at least acquiesced in—performance of these added functions and generally higher standards of performance, we may judge that the scale of wants for public goods and services has increased more rapidly than the scale of wants for privately-produced goods and services. To take a simple case, those who pay gasoline taxes are in effect choosing highways in preference to other goods which they might buy in the market place with the same money. The choice is, of course, not entirely a clear and precise choice

between highways and chewing gum. But neither are the alternatives in the choices which consumers constantly make in the allocation of their incomes among various goods clearly presented to them. Buyers' choices constantly involve selection among alternatives which are complex. The payer of a gasoline tax buys highways along with his gasoline, the buyer of a house buys fire protection through his property taxes, the buyer of theft insurance may be forced by standardized policies to buy incidental coverage which he does not particularly desire, or the buyer of a ticket to a good movie pays also for a "co-feature." Purchases are commonly "tied in" with one another, partly because of the complementary nature of goods. Thus, even though choices may not be simple, the majority of the public have accepted the growing scale of governmental activities, and in so doing they have exercised essentially the same talents for judgment which they regularly exercise in the market place.

Depression-born Functions The decade of the nineteen-thirties was the period of very considerable additions to the list of accepted functions of government. The severe and prolonged economic depression was the catalytic agent in this marked expansion, both by demonstrating the need for government intervention and by bringing liberal governments into power at federal, state, and local levels. New responsibilities were accepted in these three principal areas:

Encouragements to industry, agriculture, and labor
Extensions of controls over the economy
Promotion of public welfare

Although admittedly not entirely distinct from one another, these categories will serve to classify particular items of legislation and policy. There is a large element of public welfare in the control of industry, as there is a large element of public welfare in assistance to large segments of the economy. Within these categories of functions particular activities come and go, partly because particular measures are designed to meet particular and temporary conditions, and partly because acceptance of responsibilities by government in new fields implies an element of trial and error.

Very general encouragements to particular segments of the

economy had been begun prior to the decade of the thirties by establishment of the Departments of Commerce, Agriculture, and Labor. Informational services of a statistical or technical nature had long been performed. Aside from such general services, the developmental function had been largely confined to the questionable policies of tariff protection and, in the case of agriculture, export subsidies and grants of land and money to agricultural colleges.

Examples of the encouragement measures adopted during the thirties abound in each of the fields of industry, agriculture, and labor. The National Industrial Recovery Act granted to industry authority to engage in essentially monopolistic practices to "save the market," in return for industry promises to increase wages and employment. The easing of credit by the banking system was hoped to be effective in easing panic conditions in the capital markets. RFC loans to banks, insurance companies, railroads, and other industrial concerns were designed to loosen the deflationary grip on business. The public works programs significantly aided the construction industries, as did the various housing programs. The various agricultural acts to ease the farm credit situation, to improve prices by organized crop reduction, and to reduce soil erosion were designed to mitigate or cure short- or long-run difficulties. In the field of labor, the National Labor Relations Act had as its purpose the promotion and strengthening of collective bargaining. Government employment services, unemployment compensation, and old-age and survivor annuities were instituted for the particular benefit of labor, with indirect benefit to industry.

The regulatory or control functions of government prior to the depression in the early thirties were largely non-economic. The police and justice functions centered around the protection of broad and basic social rights. In the economic sphere government regulation embraced the fields of railroad and public utility rates and practices, pure food and drug administration, food inspection, and relatively ineffectual attempts to prevent and destroy monopolies. During the depression the regulatory function expanded greatly. In fact the expansion entered so many fields and proceeded so rapidly that questions were raised in the minds of many whether government depression policy aimed at recovery or reform. The

power of employers in their dealings with labor was greatly curbed, new issues of corporate securities became strictly regulated, steps were taken to remove the commercial banks to a respectable distance from the security markets, interstate motor vehicle transportation rates were brought under Interstate Commerce Commission control, regulation of common carriers by water engaged in foreign commerce was established, the Federal Communications Commission was given authority to regulate interstate and foreign commerce in communications by wire and radio, and federal regulation was instituted over electric utilities engaged in interstate commerce.[14]

In general the extension of the regulatory function proceeded from a broad definition of exploitation. Wherever economic power was utilized contrary to the public interest or detrimental to the welfare of classes or groups, government was constrained to enter the field to establish rules of conduct. The record is not entirely consistent, but during the period of economic upheaval government developed a vigorous economic conscience.

Regulatory functions are relatively inexpensive functions. They may involve large expansion of administrative personnel, but do not involve large outlays on materials or grants of money. It may be noted in passing that a not inconsiderable portion of the cost of regulation is borne by the concern being regulated.[15] The promotional or developmental functions normally require greater outlays in the form of loans, benefit payments, and purchases. In the third field of recent expansion—promotion of public welfare—money grants or public works are almost inevitable, and these functions are therefore normally highly expensive in terms of the number of persons directly assisted.

[14] Price control, rationing, priorities, and allocation represent the most thoroughgoing economic controls of all. They must not be ignored, although they are "war-born" and not "depression-born" controls such as are being discussed in this section.

[15] These costs to the concern fall into two categories: (1) the administrative costs of legal services, accounting and reporting, and general compliance, and (2) the additional costs which may result from accomplishment of the regulatory objective, such as reduction of profits resulting from public utility rate regulation.

The field of public welfare embraces provision for groups or classes who are considered underprivileged in some respect. This condition may be due to a normally low income level, to inadequate education or training, to temporary unemployment, or to termination of earning power due to age, physical injury or handicap, or inadequate prior provision for economic independence. Prior to 1933 the welfare function had been performed almost entirely by state and local governments. Their activities had traditionally included provision of recreational facilities, workmen's compensation plans, and relief for a few indigent aged persons in "old folks' homes." When unemployment became critical in 1931, state and local governments made unprecedentedly large payments for direct relief of the unemployed. But the marked increase in relief expenditures during the early thirties, coupled with a severe decline in state and local revenues, so seriously threatened the financial stability of local governments in particular that a large portion of these expenditures was taken over by the federal government. However, federal welfare activities went far beyond the provision of temporary relief, and many long-range social security projects were instituted. Some of the permanent welfare programs, such as old-age annuities and unemployment compensation, are supported by "premium" payments during the employed period. Others, in the nature of assistance grants, place the beneficiaries in the position of being in effect wards of the state, and their benefits are paid out of funds raised by general taxation.

The principal social welfare programs which arose during the thirties fall into two general classes: (1) those temporary relief projects designed to meet the minimum requirements of unemployed and needy persons until jobs became available in the private economy, and (2) those long-range programs of the Social Security Act of 1935, in which government-administered insurance plans or outright assistance grants to special groups were established.

Relief Programs Payments under those welfare programs which were designed to provide relief to needy persons and families, sometimes as outright grants and sometimes as wages from public employment, are listed in Table 6 below for the years 1933–1939.

TABLE 6 Relief Payments and Earnings of Persons Employed Under Federal Work Programs (Excluding Social Security) 1933–1939 [16]
(in thousands)

TYPE OF PROGRAM	TOTAL PAYMENTS
General Relief (1933–39)	$6,382,259
Farm Security Administration (Subsistence) (1935–39)	100,437
Civilian Conservation Corps (1933–39)	1,733,528
National Youth Administration (1935–39)	253,834
Works Projects Administration (1935–39)	6,332,222
Other Federal Work & Construction Projects (1933–39)	3,021,219

The figures represent payments by all governments participating; they include state and local as well as federal expenditures. All figures exclude payments for administration, materials, and equipment.

The item General Relief in Table 6 represents contributions by government to the needy under various programs at various governmental levels. These payments were in general made to individuals according to need, and thus were direct relief payments as distinguished from work relief payments. The same is true of subsistence payments certified by the Farm Security Administration. All other items in the table are in the nature of work relief projects, in which payment to recipients was based upon wage rates and hours of work roughly adjusted to need. The last item, Other Federal Work and Construction Projects, is largely the activities of the Public Works Administration, which undertook projects of public construction distinguishable from the work relief projects of WPA.

Under the various titles of the Social Security Act of 1935, the following long-range welfare programs were instituted:

Old-age and survivors' annuities
Unemployment compensation
Old-age assistance
Aid to dependent children
Aid to the blind

[16] Source: Social Security Board, *Trends in Public Assistance, 1933–1939,* Washington, 1940, p. 3.

The first two of these are supported by special taxes. The old-age and survivors' annuity program is administered by the federal government and benefits are paid from reserves built up by taxes collected from employers and employees. Unemployment compensation is administered by the states, and benefits are paid from reserves created by taxes on employers. The last three are public assistance programs, which are administered by the states with funds furnished by the states and the federal government. In the case of old-age assistance the federal government contributes the administrative costs of the program and fifty per cent of the benefit payments up to $40 per month per recipient. The federal government assumes half of the administrative costs and benefit payments for aid to dependent children and for aid to the blind. Maximum federal contributions to monthly benefit payments in the case of the former are $9 for the first child and $6 for each additional child; in the case of the latter, $20 per month.

Table 7 below indicates the amounts of benefits paid out under the five social security programs listed above. It should be noted that old-age and survivor insurance and unemployment compensation did not begin on a nation-wide basis until the fiscal year 1936–37. Although benefits to the indigent aged, dependent children, and the blind had been paid by some state and local governments prior to passage of the Social Security Act, this Act greatly increased those payments and made application of the programs nation-wide.

TABLE 7 Benefit Payments under Federal, State, and Local Programs for Old Age Insurance; Unemployment Compensation; Assistance to the Aged, Dependent Children, and the Blind; 1936–1945 [17]

TYPE OF BENEFIT	BENEFITS PAID (*$ thousands*)
Old-age and Survivor Insurance	928,000
Unemployment Compensation	2,641,000
Old-age Assistance	4,973,101
Aid to Dependent Children	1,202,951
Aid to the Blind	215,159

[17] Source: Federal Security Agency, *Social Security Yearbook*, 1945, pp. 21, 33.

The relatively small expenditure for benefits under the old-age and survivor insurance plan does not measure the long-run significance of this function. It is organized on an actuarial basis,[18] benefits being roughly gauged to contributions by and for the employee during his period of employment. Benefits under this program will thus show vast increase in future years as benefits per retired worker or his survivor become greater and as the number of living beneficiaries becomes larger.[19] Unemployment compensation payments will, of course, vary with employment conditions. Old-age assistance has been regarded from the beginning as a stop-gap provision. With the passage of time, as the old-age and survivors' insurance program provides more adequate coverage, workers reaching retirement age will be able to receive regular payments from that fund, and old-age assistance should then be applicable only to those who do not qualify under the insurance scheme. Aid to the blind and to dependent children should remain reasonably constant over a period of time unless benefits are increased, except as other provisions of the Social Security Act make for fewer dependent children.

The depression relief and social security activities of government, which are the most striking developments in the field of public welfare during the last decade, do not tell the whole story

[18] The actuarial aspects of the old-age insurance plan are being qualified in a major way by Congress' refusal to raise tax rates on employers and employees according to the schedule as originally planned. Reserves are thus being built up more slowly than actuarially anticipated; the eventual consequence must be: (1) lower annuity payments in the future, which is unlikely, (2) higher old-age insurance taxes in the future than the original schedule called for, or (3) contributions from the general fund of government at that future time when benefit payments exceed income from current old-age taxes and interest on the accumulated reserve. The last is undoubtedly the most probable of the alternatives; it indicates partial abandonment of the reserve plan in favor of considering benefit payments as a recurring charge upon the general fund of the Treasury to be paid out of general tax revenues, only one of which is the old-age tax.

[19] During the early years of such a plan, current contributions to the reserve fund will be far greater than current benefit payments. At some point, with increasing average age of the population, the two will be equal, after which benefits should exceed current contributions. Although the old-age and survivors' insurance fund had paid out only approximately $100 million by July, 1941, the reserve fund at that time had accumulated to approximately $2,400 millions. Social Security Board, *Sixth Annual Report*, 1941, p. 167.

of welfare activities of governments. It is estimated that in 1929 approximately 10 per cent of total state government expenditures and approximately 4½ per cent of total local government expenditures were for charities, hospitals, and corrections. Various titles of the Social Security Act can be expected to reduce the amount of direct charities provided by these governments, and great financial assistance under the federal work relief programs has resulted in absorption by the federal government of a large part of the costs of outlay for new hospitals and correctional facilities.

We have noted that except for war expenditures, which far surpass any other item in expensiveness, the three categories in which government payments have shown most marked dollar increase since World War I are highways, education, and social welfare. The growth of these three functions is indicated in Table 8.

TABLE 8 Growth of Highway, Education, Social Welfare Expenditures, All Governments [20]
(in millions)

CATEGORY	1913	1929	1937
Highways	426	1,936	1,818
Education	565	2,490	2,372
Social Welfare	342	1,360	5,098

ATTITUDES TOWARD INCREASING PUBLIC EXPENDITURES

The facts of the increase in public expenditures are startling, and to many they are genuinely disturbing. Probably the most common bases for anxiety are the following:

1. A general feeling that public expenditures are by nature wasteful of the product of society.
2. A concern by the minority party lest the party in power perpetuate itself by the distribution of treasury largess.
3. A concern lest the expansion of government result in encroachments upon personal liberty and the field of private enterprise.

In reference to the first, the anxiety stems from (a) acceptance

[20] Reprinted from page 121 of *Fiscal Policy and Business Cycles,* by Alvin H. Hansen, by permission of W. W. Norton and Company, Inc. Copyright, 1941, by the publishers.

as a fact that government is by nature administratively wasteful and inefficient, and (b) belief that no matter how efficiently administered, government functions are by nature non-income-producing and thus a "burden" upon society.

Little need be said about waste and inefficiency. Without doubt the system of checks and balances which permeates government results in layers of authority which imply "red tape." This is true in any large organization—social, religious, business, or governmental. The ability to act quickly without reference to other authority is an attribute of dictatorial organization, and "red tape" is an inevitable characteristic of democratic control.[21]

The notion that government is a "dead weight" upon the economy arises out of the traditional view that government is not "productive." Its functions are generally in the nature of performance of services which produce utilities for society but no direct money income to government. Because government expenditures do not directly produce their own income they are commonly thought to represent only a drain upon the income of the economy. Government expenditures for highways undoubtedly produce at least their equivalent in income to the community in the improvement of transportation and the expansion of the automotive industries. The income produced by public education is even less direct, though doubtless real. The generation of national income by virtually all government expenditure is discussed in the following chapter.

The political aspects of the increase in public expenditures are of course subject to the interpretation which the individual chooses to place upon them. The political "outs" commonly insist that expenditures are made with the primary purpose of buying votes. Patronage is without question regularly practiced in government at all levels. Rewarding the politically faithful has its advantages in

[21] The term "bureaucracy" correctly refers to the system of administration according to rules, and "red tape" in greater or less degree is one of its characteristics. Popularly, however, "bureaucracy" has come to imply in everyday usage inefficiency, graft, and the promotion of excessively large organization, either to make jobs or to exalt the position of the chief of the bureau. An important analysis of this subject is, *Bureaucracy and Trusteeship in Large Corporations*, Temporary National Economic Committee, Monograph 11, Washington, 1940.

promoting party coherence, but at the same time places men of similar points of view in the various levels of the governmental hierarchy and thus promotes a minimum of wrangling in the administrative process. The open-handed spending policies of the "New Deal" were subject to heated criticism on the grounds that the primary objective of spending was to assure election. On the other hand, a balanced view will recognize that an administration maintains itself in power by pursuit of policies which the public approves. If the desired policy involves heavy spending, the reasonable view would emphasize the vote-getting power of public acceptance of the policy rather than the use of the public treasury as a political slush fund which overcomes opposition to policy with pecuniary payment.

Extension of the field of government has restricted the freedom of action of individuals. Regulatory functions by their very nature are destructive of some individual freedoms. Most such regulation, however, has been intended to restrict the freedom to exploit, creating greater freedom of action or of choice to those formerly exploited. Limitation of the freedom of employers in dealing with their employees has greatly increased the freedom of action of organized employees. The scales may have been tipped too far in the opposite direction, but this does not necessarily condemn the exercise of control. Use of the taxing power itself limits individual choice as to the use of income, the purchase of certain goods, the establishment of residence, or the type of investment to be made. So long as general welfare—of which individual freedom is an important ingredient—is promoted, government is performing its clearly stated duty.

Expansion of government has often been characterized as a movement in the direction of socialism. Whether or not this is technically true depends upon one's definition of the term. Government obviously tends to "socialize" in the sense of subordinating individual to group welfare. An element of socialization of income inevitably occurs when progressive taxes pay for social welfare services, since the high-income groups contribute heavily to financing services whose major direct benefit accures to low-income

groups. A considerable socialization of profits from the "profit system" has occurred through personal and corporate income taxes and death taxes. Encroachment upon the traditional business field of capitalism has, however, been relatively slight in terms of social ownership of the means of production. The extensive public works program of the thirties accomplished a great deal of construction, but almost exclusively in fields non-competitive with private enterprise. TVA and some of the emergency lending agencies which were created during depression and war possess aspects of obvious competition with private industry. However, in view of the tremendous expansion of government in that period the non-competitive extent of public projects is remarkable.

"Socialism" refers primarily to social ownership of the means of production, as contrasted with private ownership. Government has thus progressed far toward controlled capitalism, but only in a very minor degree toward "socialism." In fact, government policies suggest quite clearly the objective of strengthening capitalism. Reduction in inequality of incomes has long been indicated as a reform to strengthen capitalism. The relief and welfare functions of government are inevitable, both to repair the ravages of the business cycle and to promote a higher standard of social living. Public works projects and lending functions during the depression were instituted to cushion the effects of the worst feature of free capitalism—its recurrent tendency to break down. "Pump-priming" has as its goal the prevention of serious breakdown. Anti-monopoly regulation hopes to protect the private economy from disintegrating forces within itself. On the whole, therefore, with the expansion of government activities the objective of strengthening capitalism has been far more evident than the intent to socialize the economy.

Closely related to the fear that expansion of government will interfere with personal freedom is the dread of an increasing public debt. This fear expresses itself in terms of (1) the shock to orthodox attitudes created by policies which involve periodic and severe increases in debt, and (2) the recognition that debt creates both a current carrying charge in the form of interest and the probable future retirement of the principal, which promise additional taxes

beginning now and continuing into the future. The problems of debt constitute a large study in themselves, and are therefore postponed for consideration in a later chapter.

Prejudice, dogma, and unbalance appear on both sides of the argument concerning the increase of public expenditure. Democracy is called upon to justify its existence in terms of efficiency and sensible policy. Bigness has many inherent propensities toward inefficiency, cumbersomeness, and favoritism, which it is the function of idealism, reason, and organization to combat. Our discussion of budget control in Chapter 2 constantly emphasized the need for machinery through which conscious direction of fiscal policy toward desired ends is encouraged in the greatest possible degree.

CONTROL OF PUBLIC EXPENDITURES

In the last analysis, real control of expenditures can be accomplished only by effective budgeting. For "control" does not necessarily mean "reduction." It means that expenditures are justified in terms of the whole welfare of society and in terms of the financial means at the disposal of government. "Control" implies that expenditures are "economic," by which we mean that resources not unlimited in quantity are devoted to their most productive uses, public and private. Economy in government thus means that budgetary decisions direct limited resources into government use only to the extent that such use is more productive of satisfactions or national income when administered by government than by the private economy. It means further that resources to be used by government be allocated among various public functions in such a way as to provide the greatest return measured against objectives.

The philosophy of control practiced by the federal government is essentially that of placing ultimate reliance upon the budget; that is, upon the common sense of the current incumbents of the legislative and executive departments. The President and the Congress are not seriously bound by constitutional or statutory strait jackets within which financial operations take place. But at the state and local levels governments are frequently restricted by formal controls. These are imposed upon local governments by the states, while at the state level they are either imposed by constitu-

tions or by the self-discipline of statute law. Several formal controls of expenditure have been recommended, and some have been practiced. These formal controls have generally been instituted as substitutes for, and in the absence of, adequate budget procedure. Those most widely used are tax rate limits, debt limits, and "pay-as-you-go" requirements.

Tax Rate Limitation This is a scheme for limiting expenditures by limiting revenues by limiting tax rates. It has been applied widely by the states to their county and municipal governments, and from time to time state governments have had tax rate limitation imposed upon them by their constitutions. Tax rate limits have applied almost exclusively to the property tax. This is not surprising in view of the fact that the property tax has consistently been the principal revenue measure of state and local governments.[22]

The most widely used form of tax rate limitation is that which establishes a specific maximum rate of property taxation, such as 2 per cent of property valuation.[23] Ranking second in frequency of use appears to be the method of limiting property tax revenues in any year to a given per cent of the previous year's property tax collections. This is not strictly tax *rate* limitation, for assessed valuations may change. But limitation of property tax revenues to, say, 105 per cent of those of the previous year is not uncommon, and such a procedure is likely to be in fact a limitation upon property tax rates.[24] Whatever system of limitation is employed, provision is commonly made for exceeding the limit in real emergencies. The constitutions or statute laws imposing limits generally provide that these

[22] Many states have imposed rate limits of one sort or another on poll taxes, dog taxes, and various licenses. They are excluded from this discussion because restrictions upon such minor revenue instruments are obviously not designed to control general expenditures.

[23] This type of over-all tax rate limitation, applying to state as well as local governments, was employed in nine states in 1943. *Cf.* G. M. Morris, *Tax Limitation Laws*, Chicago, American Municipal Association, 1943, for a good general presentation of the case against tax limitation.

[24] It will be recognised that when, as in the case of a few states, an upper limit to over-all *expenditures* of a local government is established, a *de facto* property tax rate limit is established. For the importance of property taxes in the local government revenue picture, the local tradition of budget balance, and the slowness with which assessments are revised, combine to make the property tax rate the principal dependent variable with total expenditure.

municipal governments. There are, however, elements of elasticity in this system of expenditure control. When debt limits are related to assessed valuation of property the debt limit can be increased in absolute amount by assessing property at higher figures. Exclusion of certain types of debt from such control provides an element of desirable elasticity. Considered by itself, a debt limit cannot control those expenditures met by increased taxation.

As in the case of tax rate limitation, debt limitation falls far short of serving as an adequate substitute for budget control. It operates only on total expenditure, without regard for the relative importance of different functions financed within the debt limit, and it may well check necessary emergency functions.

The federal debt limit is fixed by Congress and can be changed at any time by Congress. Its real service therefore is as a reminder to the executive and the Congress of the course which the debt is following. The action of increasing the debt limit may have a sobering influence upon fiscal authorities as they plan expenditure programs; as an instrument of formal expenditure control it is largely ineffective. The same can be said of those states in which the debt limit is fixed by statute law. Where a debt limit is imposed upon the state by the constitution—and therefore difficult of revision—it acts as an undesirable strait jacket upon the budgeting authority. For good budgeting implies the ability to contract debt at whatever time and in whatever amount the executive and the legislature deem wise; an unchanging ceiling which can hardly foresee emergencies is thus an improper restriction upon fiscal planning under the budget.

Pay-As-You-Go This policy means simply the prohibition of borrowing. It forces upon the fiscal authority the requirement of limiting current expenditures to current receipts. Even though as a long-run policy, particularly for local governments, pay-as-you-go may be wise, it is not wise to impose the policy by general legislation. If a pay-as-you-go policy is wise in a given period, that policy should be determined upon by fiscal authorities and reflected in the budget. To impose such a policy by legislation is to abandon good budgetary practice in emergencies.

There are times when governments, like individuals and businesses, should go into debt. Borrowing is an essential part of financial

management. An individual without funds who held to a pay-as-you-go policy in the face of a need for emergency surgery could get only cold comfort from the "wisdom" or orthodoxy of his policy. Historically a large proportion of business expansion has been financed by borrowing. It is good business probably far more often than bad. For the same reasons, governments cannot afford to cripple their schools in order to meet relief obligations. And from the point of view of individual projects, pay-as-you-go is often expensive. One state government, when it decided to build a new state house, planned to do the job by the "sound" financial method of paying for the construction out of current revenues. It is reported that because of inadequate year-to-year budget surpluses the construction dragged on for a period more than twice as long as would have been possible under a bond issue. The final total cost was over twice the planned cost—the cost which would have been paid if construction had been financed by borrowing. The loss of several years' occupancy of the building and the money expense of several million dollars more than was necessary represent a high price to pay for fiscal "virtue."

Fortunately, though pay-as-you-go still remains the ideal of fiscal policy at least for most state and local governments, there are very few modern attempts to enforce it by law. The constitution of North Carolina prohibits the state and the local governments from increasing their debts in any one year by an amount greater than two-thirds of the amount by which the debt was reduced during the previous year.[27] Therefore, unless the state ran a surplus in any year it could not borrow at all the following year. The course of the debt can therefore never be upward. It must either remain constant or decrease. This is pay-as-you-go with a vengeance, crystallizing the policy in constitutional enactment. A few states impose pay-as-you-go on the general fund by prohibiting debts for ordinary purposes. The probable effect of this policy is either to declare unusual expenditures "extraordinary" or to starve ordinary functions of government to support unusual expenditures elsewhere. And it will be noted that any

[27] Art. V, Sec. 4. The exceptions are: "To fund or refund a valid existing debt; to borrow in anticipation of the collection of taxes due and payable within the fiscal year to an amount not exceeding fifty per centum of such taxes; to supply a casual deficit; to suppress riots or insurrections, or to repel invasions."

time a government reaches an unchanging debt limit it must thereafter follow a pay-as-you-go policy, except in those lines in which borrowing is exempt from debt limitation.

The general conclusion with respect to "formal" controls of expenditure is that such controls may be more or less useful where potentially good budgeting is impracticable, but where good budgeting is possible they not only add very little but may work real harm.

GRANTS-IN-AID

Grants-in-aid are contributions from governments at one level to governments at a different level. They are made from funds to which the grantor has title, and therefore do not include distribution of revenues collected by one government for another.[28] Federal grants to states and local governments are always made for specified purposes, though state governments make some unspecified grants to localities.

One or both of two major causes generally account for the existence of grants.[29] (1) The resources of governments at a lower level are inadequate to provide desired services at uniformly high standards, and thus require financial assistance from governments with greater resources. (2) Certain functions are regarded by government at a higher level to be necessary, but that government either cannot for constitutional reasons or should not for administrative reasons perform the function itself. Thus a nation-wide depression relief program should be uniform throughout the nation, but probably should be administered locally.

Grants by states to local governments bulk larger in the whole transfer picture and are of longer standing than federal grants. This

[28] Taxes collected by state governments and shared by local governments have become common in recent years. These are not, however, grants-in-aid since amounts distributed to local governments cannot be considered at any time to have been state funds.

[29] This excludes minor "uphill" transfers from government at a lower level to government at a higher level. Local governments transfer funds to states as payment on loans extended to them by the state, payments to state pension funds for local employees, transfers to states of relief funds later disbursed in state-local relief, and local advances to states for construction of state-local highways. States have made payments to the federal government on former public works loans. None of these is in the nature of a grant. See U. S. Bureau of Census, *Financing Federal, State, & Local Governments: 1941*, 1942, pp. 55–6.

follows naturally from the fact that local governments are created by and are agencies of the states. The purposes for which state aid was granted to local governments in 1941 were as follows: [30]

Schools	$735.4	million
Public Assistance *	407.0	"
Highways	341.7	"
Other Specified	22.6	"
Unspecified	191.1	"
Total	$1,697.8	million

* Includes old-age assistance, aid to dependent children, aid to the blind.

The public assistance grants are of recent origin, growing out of the Social Security Act of 1935. In reality such grants are part of a chain of grants begun by federal financial assistance to the states for these purposes. The other types of grants in the list, although they have steadily increased in size, are of longer standing. Of particular note are the state contributions to local education. The rationale of such grants is to be found in the need for state-wide standards of public education, which standards could not or would not be met by local governments operating independently. Poverty or niggardliness of local governments could thus create areas in which a primary function of the state is inadequately performed.

Federal grants in 1941 were as indicated in Table 9 below.

TABLE 9 Federal Grants to State and Local Governments, 1941 [31] (*millions of dollars*)

PURPOSE	TO STATES	TO LOCAL GOV'TS	TOTAL
Public Assistance	331.2	...	331.2
Highways	168.3	...	168.3
Education	88.0	...	88.0
Employment Security Administration	65.7	...	65.7
PWA Grants	34.2	81.1	115.3
Agriculture	24.8	...	24.8
Health	24.6	...	24.6
Other	3.2	...	3.2
Totals	739.9	81.1	821.0

[30] From U. S. Bureau of Census, *Federal And State Aid, 1941, 1942,* p. 25.

[31] U. S. Bureau of Census, *Federal And State Aid, 1941*, p. 14. Excludes District of Columbia. Totals are not necessarily exact sums because of rounding.

Public Assistance grants originating in the Social Security Act were made for old-age assistance, aid to dependent children, and aid to the blind. Highway grants were primarily allocations first provided for in the Act of 1917, to assist the states in the construction of national highway systems and to improve rural roads. The educational grants were largely for defense training, but included also vocational education, agricultural and mechanical arts colleges, and state marine schools. The federal government did not contribute to the cost of regular primary and secondary education in early 1947, though there was evidence that such assistance might soon be forthcoming. Employment security grants were made to pay the administrative costs of state unemployment compensation and of public employment offices. The agriculture grants were made for assistance to agricultural experiment stations and agricultural extension work. Public health grants were made for the following purposes: public health work, venereal disease control, crippled children, and maternal and child health. It is noteworthy that in no case is an activity carried on by a state or local government entirely with federal funds. In some cases the federal government simply makes grants of minor financial assistance to an existing state activity. In others, notably highways[32] and public assistance, the state must match federal funds, and there is therefore joint and nearly equal participation by both.

The institution of grants-in-aid has accomplished the very useful governmental purpose of administering certain functions at the logical lower and more intimate level by the use of funds of the more centralized governments with more ample revenue resources and borrowing power. Some of these functions could not constitutionally be performed by the federal government, but the offer of federal funds with performance requirements has accomplished desired results. On the other hand, there are potential dangers to the grantee government. It is difficult to refuse an offer of two dollars for one, and grantee governments may find themselves purchasing services at the bargain counter beyond their means. Further, there is dual budgetary consideration of such expenditures; the budget of the

[32] This is true only of the *designated federal aid* highways. Total highway expenditures by the states far exceed grants by the federal government.

grantor may consider the function worth 50 per cent of its total cost, and that of the grantee may do the same. It does not necessarily follow, however, that the function is worth its total cost to the taxpayers. There is the additional fact that, if the grantor government were to withdraw, the grantee would be forced either to bear the whole cost or—a bitter choice—drop the function.

PUBLIC EXPENDITURE AND ECONOMIC CONDITIONS

In this chapter we have discussed the trend of public expenditures, the more important functions which give rise to those expenditures, and expenditure control. This is the traditional approach to the subject of public expenditures, and discusses materials which are essential to an understanding of what government does with its money. It is, nevertheless, the narrowest possible view of the economic aspects of public expenditure. It is important to add, since it is so frequently overlooked, that most government services are basic in nature; their benefits reach out into all branches of economic life. Consider for a moment the magnitude of the dollars and cents benefits to the business community and to individuals of such services as protection, highway construction, education, informational services, and provision for financial security. How productive would the economy be without these services? How could the capital accumulation necessary for technological advance in a private property economy have taken place without the protection of private property? How much lower would current levels of national production and distribution be if highway transportation did not exist in substantially the present form? How could we possibly measure the contribution of public education to production "know how" and the transmission of information? How much has agricultural production been increased and costs reduced by dissemination of information concerning agricultural production techniques? And in the modern economy, are the economic benefits of security not virtually immeasurable? The underlying quality of typical government services justifies the conclusion that in dollars and cents benefits the costs of government are returned to the economy many times over, that the major part of peacetime government expenditures are highly productive by the very nature of the functions performed.

The narrow and traditional view of the effects of public expenditures confines itself to consideration of the social value of direct consumer services performed by government. As we have seen in the paragraph above, a major part of these services makes a basic contribution to the productive efficiency of the economy. But the broader and newer view raises questions of the economic significance of expenditure *as expenditure*.

Disregarding for the moment the usefulness of the service for which payment is made, what does the act of expenditure itself do to the flow of incomes in the economy? Educational expenditures do provide education, but how do the purchase of books, the payment of teachers' salaries, and the construction of school buildings affect the general level of economic activity, the level of employment, and the distribution of income? As book publishers, schoolteachers, and building and labor contractors receive payment from government, what do they do with their income and what difference does it make?

Clearly in the economy incomes are passed from hand to hand; income of A is spent and becomes income to B. The income of the grocer depends upon the expenditure by his customers of their income for groceries; employment in the publishing trade depends upon (public and private) purchases of books; total demand for construction labor and materials depends upon combined public and private building programs. Recognition of the income-inducing potentialities of spending—public as well as private—are clearly evident in attempts of local Chambers of Commerce to attract new industries, army camps, and various public works projects to their localities. It is such matters as these which the narrow view of expenditures ignores,[33] and which are so important to the general level

[33] The narrow traditional view here described is not a straw man artificially set up as a target. Nearly all important writers on public finance from Adam Smith (1776) up to the present generation have limited their view of fiscal operations to simply an appropriation of private income to public use for performance of consumer services. No attempt was made to follow out that expenditure as income to its recipients. Thus, taxation was a simple subtraction from national income, and there was little if any awareness of the income-producing aspects of expenditure.

Adam Smith (*Wealth of Nations*, Modern Library Edition, 1937) believed that government expenditures were payments for "unproductive labour" (pp. 877–8), and "as smaller or greater proportion of [the "annual

of economic welfare as to require analysis. The following three chapters are devoted to this analysis, and thus round out our study of public expenditure.

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produce" or national income] is in any one year employed in maintaining unproductive hands, the more in the one case and the less in the other will remain for the productive, and the next year's produce will be greater or smaller accordingly; the whole annual produce . . . being the effect of productive labour" (p. 315). We are not interested here in the controversy over Smith's distinction between productive and unproductive labor. The point is that Smith concludes that government expenditure cannot increase national product; whether or not it reduces national product depends upon whether that part of the previous year's income taken in taxes would have been spent by private persons for productive labor.

The same emphasis upon taxes as a withdrawal of funds from the private income stream and ignorance of the income-inducing effects of pouring these funds back into the stream is evidenced by Ricardo, J. S. Mill, Bastable, and H. C. Adams. This narrow view in Adams' *Science of Finance* (1906) is implied in the following: "The starting point is the fund of wealth at the disposal of the nation; the objective point is the highest development of both individual and national life; the problem is to so balance the assignment of expenditures between the various forms of consumption that the life of the people shall be nourished and the organs of the nation developed, at the point where nourishment and development are most needed" (p. 29).

Professor H. L. Lutz (reprinted, by permission, from *Public Finance*, 3rd edition, New York, Appleton-Century, 1936) reflects the same view when he says: "The test of the productivity of expenditure for public education would be the success of the educational effort in development of intelligent citizens . . . ," or, ". . . if relief expenditure prevents distress without destroying self-respect, and the instinct of self-support, it is productive" (p. 164), or, "In some degree public expenditure may add directly to the aggregate of wealth produced. Well-run government commercial enterprises, reforestation and reclamation projects, and other forms of state business are the most obvious illustrations. Even the expenditure on ordinary services may result in the accumulation of certain assets, such as public buildings, which are a useful addition to the aggregate of community wealth" (p. 167). From Professor Lutz's point of view, production of a play by a WPA theater group could not be productive. Yet the actors, who are taken from the relief rolls, spend their wages for bread, which creates employment and income in retail stores, bakeries, and mills, and produces income to the wheat farmer. Is the purchase of bread by an actor for Paramount Pictures significantly different in its effect upon national income through the same channels?

On the other hand, an early and refreshing recognition of the general economic effects of public expenditure is to be found in Daniel Raymond's *Thoughts on Political Economy*, 1820. Raymond was an American lawyer who wrote his *Thoughts* to "please myself" and because "I have read musty law books till I was tired." His thoughts are fresh and stimulating, though

RECOMMENDED READINGS

General:

Maxwell, J. A., *The Fiscal Impact of Federalism in the United States*, Cambridge, Harvard, 1946, Part I.

The various chapters in Part I deal with various functions upon which major expenditures have been and are made. The approach is both historical and analytical.

Grants-in-aid:

Bittermann, H. J., *State and Federal Grants-in-Aid*, N. Y., Mentzer, Bush, 1937.

The most comprehensive treatment of the general subject. Chapters 1, 2, 31 are general chapters; the remaining chapters discuss the use of grants-in-aid for specific purposes and at different governmental levels.

Blough, R., "Federal and State Grants-in-Aid," in Groves, H. M., *Viewpoints on Public Finance*, N. Y., Holt, 1947, pp. 600 8.

Good, short discussion, with special reference to the use of grants for equalization purposes.

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they appear to have gained very little if any following. For our present purpose, the following quotation is selected to suggest the broader view here discussed: "The body politic like the natural body is liable to fall into a state of comparative lethargy and torpor. It then becomes necessary to arouse its dormant energies, by administering stimulants. The expenditure of public money, in public works, will often produce this effect" (p. 294).

CHAPTER 4

EXPENDITURE AND ECONOMIC WELFARE

NATIONAL PRODUCT AND NATIONAL INCOME

Analysis of the place of government fiscal activities in the operation of the whole economy requires that we trace the flow of funds through the cycles of production and use of goods and services. In this way it is possible to see the effect upon the material welfare of society of various types of economic action, and to show points at which government expenditure may increase the productivity of the economy.

We shall use the term "goods" throughout this analysis to represent all those commodities and services which bring a price in the market. In a profit system the adequacy of price is largely the determining factor in productive activity, encouraging expansion when price is attractive relative to cost and encouraging contraction when potential prices do not give promise of profit from production.

Gross National Product The gross national product is a magnitude, measured in either physical units or value units, which represents the total productivity of the national economy during a period of time. This total productivity is not, however, a simple sum of the physical or value units produced by all enterprises in the economy of the nation during the period selected. For such a sum would involve a great deal of duplication, since some firms produce raw materials or partly finished goods whose values are included in the values of finished goods. If we were to add together the values

(or physical units) of raw materials, partly finished goods, and finished goods to get a sum of total productivity, this total would be made meaningless by double counting. Suppose, for example, that a farmer produces 1000 bushels of wheat, which he sells for $2000 to a miller. The miller makes of this wheat 50,000 pounds of flour, which he sells to a baker for $2500. The baker uses the flour to produce bread which is sold for $5000. The value of the product of producers in earlier stages is included in the value of the final product (bread). If, then, we were to say that these three enterprises contribute $2000 + $2500 + $5000, or $9500 worth of product to the nation's total output we should be guilty of a considerable amount of multiple counting of the same value of product. For the $2500 worth of flour produced includes $2000 worth of wheat, and the $5000 worth of bread includes the value of the flour. There are two methods of eliminating this duplication. One is to count as total value product the values of final products only—$5000 in our example. The other is to measure the product of each as the value added to the materials purchased from others. In our example, the farmer produces $2000 worth of wheat, the miller adds value of $500 to the wheat ($2500 worth of flour less the $2000 cost of the wheat), and the baker adds $2500 of value to the flour. By this method the combined value product of the three producers is seen again to be $5000. Of course our example is oversimplified. There may be material ingredients of the flour in addition to the wheat, and flour is not the only ingredient of bread. The "value added" calculation requires tracing back all product ingredients of the final product.

The gross product of a firm is thus the value which it adds to the value of materials with which it works. The *gross national product*, measured in value terms, is the sum of all value added by all enterprises in the nation during a given period. This sum is equal to the value of all final goods and services produced by the economy. Measured in the physical sense, gross national product is the number of physical units of final products produced during the period.

For our purposes it is useful to divide the total of final goods and services representing gross national product into three categories:

1. Goods for private consumption, including both durable goods, such as houses and automobiles, and non-durable goods, such as food, gasoline, and movies.
2. Goods for private production, such as factory buildings, machines, and delivery trucks.
3. Goods for government, including both consumption goods (food and clothing for soldiers) and production goods (turbines for TVA).

We segregate goods for government from those for private consumers and producers solely because we are here primarily interested in the effect upon gross national product of government purchases. Many of these goods for government are the same items as those going into private consumption or production.

The gross national product includes all final goods and services produced by all producers during a period. Its magnitude is thus at least a first approximation to a measure of the productivity of the economy. The maximum size of gross national product, in physical terms, is limited at any time by the quantities of resources, human and material, available for production and the stage of technology reached by the economy. Technology determines how these resources may be combined to get the maximum output for a given effort. In value terms, the gross national product is further limited by the possibilities of selling output at remunerative prices.

It is important to see that the size of gross national product in any period is the quantities of output of final products sold. It makes no difference to whom that output is sold. A dollar's worth of final goods sold during the period represents a dollar's worth of gross national product. Purchase of a dollar's worth of goods by government is exactly as important to the size of gross national product as is purchase of a dollar's worth of goods by a private individual or a private corporation. Thus, others remaining constant, increased purchase of goods in any one of the three categories listed above will increase gross national product for the period by that amount. In a system of capitalism the role of effective demand is crucial. Producers reflect in their production plans their estimates of the willingness of buyers to spend for their products. Since the principal

incentives to economic activity lie in the actions of spenders of whatever type, we see that in a very real sense the level of gross national product depends upon the level of spending. If decreased private spending were to be exactly offset by increased government spending, over-all demand and the level of gross national product would remain the same.

National Income In an economy operating under the institution of private property, everything produced belongs to someone. Thus, every dollar's worth of output in the gross national product is a dollar of gross income to some person, to some firm, or to government. It is in this sense that we can set up the equation:

Gross national product = gross national income.

The flow of output of the economy, measured in dollars, must be equal to the flow of money income to the economy.

However, if the magnitude of gross national product (or income) is to be used for comparison of degrees of economic activity at different times, or to measure the output of goods available for use without impairment of productive capacity, certain qualifications or adjustments must be made. Many prices—and gross national product is measured by prices—include taxes on the production or sale of goods. In such cases government is using business firms as agencies for collecting taxes from buyers of products. These taxes do not represent goods produced, but represent simply an addition to the prices of goods. They effect a transfer of income from the purchasers of goods to government. Thus, the imposition of new taxes of this sort would, by increasing prices, increase the *measure* of gross national product though physical output is not increased. A second qualification concerns depreciation. In the process of production, capital goods of a more or less durable nature are gradually used up. The productive life of a machine, for instance, is shortened by use in production. Thus a part of the stream of output represents a using up of capital equipment, and if business is to keep its plant intact this part of the stream of output must be reserved for replacement of capital. This means that a portion of value product of the economy must be reserved for the maintenance of plant, and this portion is *capital* and not *income*.

A further qualification relates to the *national* aspects of national income. We said above that under a system of private property everything produced belongs to someone. But it may belong to someone not a member of the national society whose income we are measuring. Thus, up to World War I, the United States was a "net debtor nation," meaning that investments of foreigners in our enterprises exceeded investments by our nationals in foreign enterprises. A part of the gross product (income) of a net debtor nation thus belongs to foreign nationals and not to persons in the nation where production takes place. Conversely, a net creditor nation has title to that part of gross national product of another nation represented by return on net investment in that nation.

The three qualifications—business taxes included in price, product reinvested to maintain capital, and product which belongs to persons of another nation—must be made to the figure of gross national product (income) to determine true (or "net") national income of any nation. "Net national income" is thus determined by the following calculations:

> Net National Income *equals* Gross National Product *minus the sum of* Business Taxes Transferred to Government, Depreciation of Capital, and Net Payments to Foreigners for Use of their Capital.

It will be evident that in the case of a net creditor nation the last item will be negative, representing an addition to gross national product in determining net national income.

Net national income represents the money value of the true net income of a nation's economy for a given period. And the net national income (product) of the economy is made up of (1) private purchases for consumption, (2) private purchases for net additions to productive equipment, and (3) purchases by government. It will be noted that the deductions from gross national product discussed above apply to output purchased by government as well as by private persons.

The size of net national income—we shall henceforth refer to it simply as "national income"—measures the material well-being of the society. This material well-being is what economists commonly

refer to as the standard of living. If we are to compare the national income in one period with that in another, in order to compare material well-being in the two periods, we must be aware of two important facts. The first is that national income is usually measured in terms of contemporary prices. Thus national income may show increase simply because the price level has increased. In this case the quantities of goods becoming available for private or public use will not have increased. The second fact is that national income, even when adjusted for price change, can measure only the total quantities of goods available for use by the whole society. It tells nothing about the distribution of income among the members of that society. Maldistribution of rising national income may still leave large social areas in which material welfare is at a disturbingly low level.

Distribution of National Income As goods are sold in the market, money income accrues immediately to firms.[1] The money income thus realized is distributed among the factors of production according to rates of remuneration existing in the market. A large part goes to labor and management in the form of wages and salaries. A second part goes as interest payments to capital lent to producing firms. A third portion is paid in the form of rents and royalties to the owners of land, machines, and patents or processes used by firms. The remainder is the profit to the owners of firms. Table 10 shows the distribution of national income, or "income payments," for certain selected recent years.

The national income in the hands of the various income recipients is available for purchase of national product or output. In any income period the net national product, composed of private consumption goods, private production goods, and government goods, was purchased from the shares of net national income accuring to labor, capital, and ownership.

This does not, however, explain how government goods in the national product are purchased by government, since government is not a factor of production and does not participate directly in the

[1] By the firm we mean the business unit. It may be a large or small corporation, a partnership, or an individual business enterprise, including individual professional persons.

TABLE 10 Income Payments, United States, 1929, 1935, 1945 [2]

	1929		1935		1945	
	$ billions	*% of total*	*$ billions*	*% of total*	*$ billions*	*% of total*
Labor income, including salaries to managers	51.49	65.5	36.06	67.3	114.1	71.7
Interest (payments to capital)	5.10	6.5	4.42	8.3	11.8*	7.4*
Dividends, entrepreneurial withdrawals, rents, royalties (payments to ownership)	21.89	28.0	13.06	24.4	35.3	20.9
Total	89.63	100.0	53.59	100.0	160.7	100.0

* Includes rents.

receipt of a share of national income.[3] There are many kinds of transfers of income which do not contribute to the magnitude of national product or income. The result of such transfers is simply that the original recipient of income is not the person who spends it. Taxes represent a major portion of such transfers. All taxes which are a part of a market price paid for anything are transfers from the purchaser of the goods of a part of his previously received income to government, collected through business firms. Other taxes, such as personal income taxes, take directly a portion of his income from the recipient after it is realized. But these transfers do not in themselves represent transactions in goods and thus do not enter into determination of the size of national income. Suppose that national

[2] "Income paid out," for which figures are presented in this table, is not identical with national income as we have defined it. For income paid out does not include savings by business from its income. Figures for 1929 and 1935 in the table are taken from Bureau of Foreign and Domestic Commerce, *National Income in the United States*, 1929–1935, pp. 26, 30. Figures for 1945 from Bureau of Foreign and Domestic Commerce, *Survey of Current Business*, February, 1946, p. 7. Figures do not necessarily add up to totals because of rounding.

[3] This ignores, of course, government commercial enterprises such as the post office, Panama Canal, municipal electric utilities, and state liquor stores. In these cases government as owner may receive a profit income exactly like the profit accruing to private business firms.

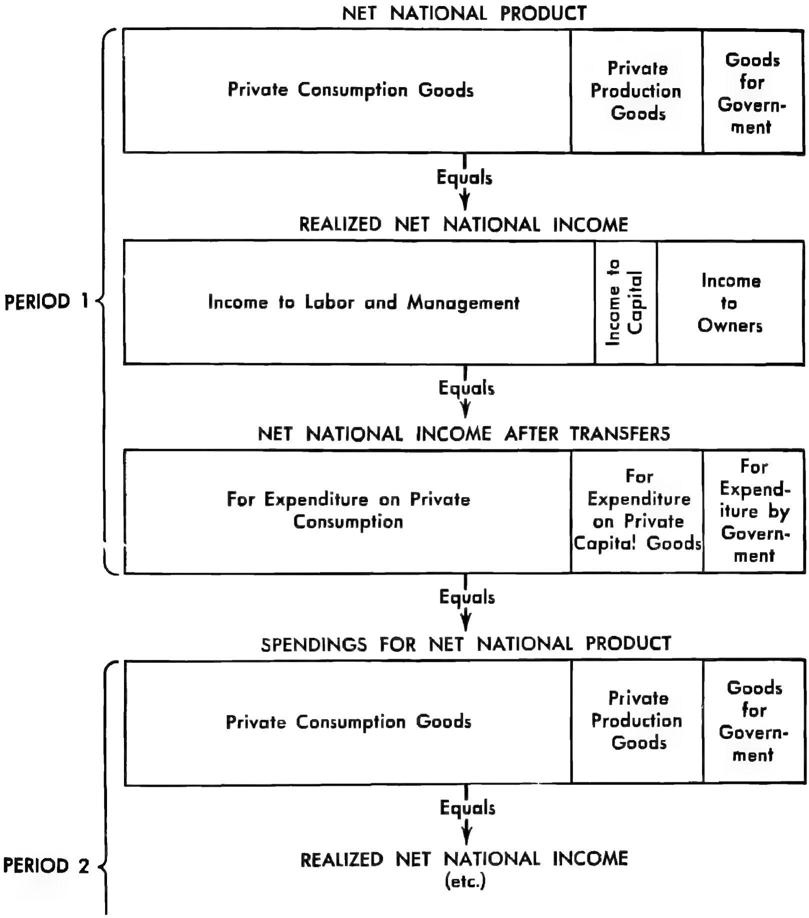
income realized during a year were $100 billion. If government were to tax away 100 per cent of this income and then were immediately to give it back to the persons who paid it, would the national income thereby be increased to $300 billion, counted as $100 billion income to individuals, $100 billion to government, and $100 billion to individuals again? Common sense tells us that this conclusion would be absurd; that no matter how many times it is passed from hand to hand, it remains as national income for the year of $100 billion. The reason is that only when originally realized from the sale of national product is it national income. The transfers to government and back again involved no output or sale of goods.

Other transfers of income may be of greater or lesser magnitude in any period under consideration. Loans of all sorts are transfers of income. If A lends to B for consumption or business purposes, A transfers realized income to B, who is in a position to spend it. If A buys newly issued stocks or bonds of C Corporation, A's previously realized income is no longer available for disposal by him, but C Corporation spends it. If A buys newly issued government securities, government in effect spends that part of his income for him. And if A buys old corporate or government securities from D, part of A's income is transferred to D for disposal by him.

Likewise, when income realized is transferred to others through gift, deposit in a savings bank or other thrift institution, or purchase of insurance or annuities in private insurance companies or government insurance plans, the transfer merely gives to someone else the power to dispose of that income. The magnitude of national income in that period is not affected by any of these transfers.

Receipts of and expenditures from income are of course going on constantly. In order to simplify the picture we shall utilize the concept of an artificially defined "income period." An income period is that period of time during which an income is received but not spent. Thus, income is received in Period 1, but is spent and becomes income received by others in Period 2. Period 2 incomes are spent and become incomes of still others in Period 3, and so on. The length of time required to complete an income period will vary widely. That portion of incomes deposited in banks during periods of large excess bank reserves will progress from receipt in Period 1 to ex-

penditure in Period 2 relatively slowly. In general incomes received by persons in the low income classes who are forced to spend quickly will progress from Period 1 to Period 2 rapidly.



A chart showing the circuit flow of income from one period to the next appears above. In this chart certain assumptions are made which will be discussed later in this chapter. The assumptions are: (1) All income received in Period 1 is spent in Period 2, and (2) no

new money enters the circuit for expenditure in Period 2. The consequence is that national income in Period 2 is exactly equal to income in Period 1. This chart will prove useful in clarifying the following paragraphs.

National income realized from the sale of national product in Period 1 is available for expenditure for the national product of Period 2, creating the national income of Period 2. However, income realized by the factors of production in Period 1 is subject to a considerable amount of transfer before being spent in Period 2. Transfers of income from the factors of production to government through taxation and borrowing bulk large in modern times, and make possible the purchase of government goods from national product.

An interesting set of problems arises in connection with war emergencies, when government military goods absorb a large share of the productive capacities of the economy. The degree to which military production must take place at the expense of civilian production depends upon how fully the factors of production were employed on civilian production prior to the war. If there is excess productive capacity, military production can be added to civilian production until the factors are fully employed. After this point, expansion of military production can take place only by releasing factors from civilian production, with consequent reduction in the output of civilian goods.

Let us assume that some unused productive capacity exists at the beginning of military production. As military production increases, national income increases, and in Period 1 national income is greater than it was in Period 0. The whole of this national income accrues (as before) to the factors of production. In Period 2 the amount of national product earmarked for government is larger than in Period 1, while (we assume) the amount of national product available for civilian use has not increased. The consequence is strong upward pressure upon the prices of civilian goods, since income available for expenditure on them is running ahead of output at previous prices. It is this difference which has frequently been termed the "inflationary gap."

The easiest attitude to take toward this inflationary pressure is to allow the gap to close itself, to allow prices of civilian goods to

rise until they absorb spendable income. This surrender to inflation, however, has two serious drawbacks. In the first place, industries producing civilian goods become so profitable that there is serious danger that scarce materials and labor will be diverted from necessary war production to relatively unessential civilian production. The second drawback lies in the fact that not all classes participate with any degree of equality in the rising national income. When the increase of money incomes is not accompanied by an increase in the output of civilian goods (as in the case here described) individuals whose money incomes remain fixed actually suffer reduced real incomes.

As indicated by our previous discussion, the logical solution is to effect a transfer of income from private recipients to government. Ideally the amount transferred should nearly equal the value of goods purchased by government, leaving available for civilian expenditure little more than enough income to purchase civilian output at pre-war prices.[4] The transfer can be accomplished either by taxation or by borrowing. It is, however, inconceivable that any tax measure could be so constructed as to fit perfectly the varying incomes of individuals so as to take inflationary income from them in the right amounts at the moment it is received. And it is even less likely that voluntary lending of inflationary income by individuals to government will accomplish this result.

Nevertheless Congressional tax policy during World War II never seriously attempted to solve the inflationary problem, which lays Congress open to reasonable charges of remissness and irresponsibility. It is probably true that the success of the war bond drives was due not so much to the effectiveness of the campaigns as to the fact that the stop-gap economic controls (price regulation, rationing, priorities and allocations) were reasonably successful in holding prices down. These controls effectively limited spending by private

[4] Some price increase in war production lines is desirable, as an incentive to expand war production to the elastic limit of resources. This expansion of total product will require the introduction of some new money. But similar incentives in the form of price increases will also be necessary in civilian production lines, to encourage maximum production with limited resources. Otherwise more than the minimum necessary quantities of productive factors will necessarily be devoted to civilian production, in order to maintain civilian supply.

persons and firms for consumption and investment, thus creating savings which were more productive to their owners when invested in war bonds than when lying idle.

DISPOSITION OF INCOME BY SOCIETY

We have seen that the national product is made up of goods for private consumption, goods for private production, and goods for government. Goods for government are also consumers' goods or producers' goods, and there are only these two real categories of goods.

Consumption Expenditures of income for consumption include all expenditures for goods in finished form which provide satisfactions to their users. Some, like food, fuel, gasoline, concerts, and many services, are used up immediately, and are classed as non-durable goods. Others—durable consumers' goods—provide a *flow of satisfactions* over a period of time. Examples are houses, automobiles, stoves, parks, and the like. It is the volume of consumption expenditures in any income period which determines the immediate material well-being of a society.

The *propensity to consume*, which Mr. Keynes[5] defines as "the functional relationship . . . between . . . a given level of income . . . and . . . the expenditure on consumption out of that level of income . . . ," reflects for society as a whole or for the individual the tendency to use income for consumption. There are several factors determining propensity to consume. The first is a set of psychological factors which we may call "habits of consumption," which tend to change only slowly over a period of time provided other elements affecting propensity do not vary markedly. The second is the size of an individual's income, which undoubtedly has much to do with the proportion of his income consumed. It is observable that as individual incomes increase there is a tendency to spend a smaller portion of the new increments of income for consumption.[6] Thus in

[5] J. M. Keynes, *The General Theory of Employment, Interest, and Money*, N. Y., Harcourt Brace, 1936, p. 90. The discussion in this paragraph runs largely in terms of Mr. Keynes' treatment of the propensity to consume.

[6] In Keynes' terms, the *marginal propensity to consume*—the propensity to spend for consumption out of additional increments of rising income—falls as income increases.

general the larger the income the smaller the proportion of that income spent for consumption, although the proportion of total income which is consumed falls more slowly than does the proportion of new increments of income.

A third factor in the propensity to consume is the rate of interest. The more attractive interest returns from invested (not consumed) incomes are, the greater the tendency to save from income rather than to spend it on consumption.[7] If interest returns are low, the satisfactions to be gained from immediate expenditure of a dollar of income for consumption outweigh the valuation of future interest to be received if that dollar is not consumed but invested.

Finally, tax policy may affect individual propensities to consume. High death taxes may well discourage accumulations of wealth for transfer at death; the alternative being expenditure for consumption during the life of the income recipient. And high taxes on business profits may tend to dampen enthusiasm for additional business investment from savings, and thus may encourage consumption of current income.

It is well to take notice that choices by business to consume or to save are not necessarily determined by all of the factors described above. The psychological factors in the propensity to consume apply to individual persons, less to small and individually owned businesses, and almost not at all to large corporations. Business expenditures and savings are determined by size of business income, probable profit return in the future, tax policy, and peculiarities in the position of individual firms.

The propensity of society to consume at a given level of social income is derived from the propensities of individuals and businesses within that society. We may conclude that society's propensity to consume is somewhat more stable than that of individuals, because of the averaging-out of opposite individual changes. However, for

[7] A counter tendency must be recorded. When interest rates are low it is necessary for persons who expect to live on the future income from investments made now to save a larger amount from current income in order to build up a larger principal. The larger principal is necessary to provide a reasonable income at lower interest rates. On balance, however, this counter tendency is quantitatively smaller than the tendency mentioned above.

society as a whole, it is practically certain that propensity to consume falls as national income rises.

Savings We define savings as all income of a given period not spent for consumption. An individual or a society saves simply by not spending for consumption. Saving may result from conscious choice not to consume in the present in order to be able to consume in the future. An individual may forego present consumption to be able to buy relatively expensive consumption goods such as houses, automobiles, or refrigerators in the future. Or he may forego present consumption to build up reserve funds which can later be used to buy consumption goods when his income may be inadequate. He may refrain from immediate consumption to purchase insurance, annuities, or investments which will increase income in the future. Business may save to expand their capacity to produce, to replace equipment in the future, or to provide reserves against various contingencies.

On the other hand saving may not result from conscious choice of the saver to refrain from expenditure on consumption to build up reserves or to increase future income. A part of income may be taken by government in the form of taxes. Such tax payments are saving by the individual, in terms of our definition. The saver may not spend on consumption simply because he finds no consumption goods in the market for which he cares to spend. This may occur frequently in the high-income groups, since all of their consumption wants may be satisfied before their whole incomes are spent. It may occur in all groups when there is prospect of lower prices in the near future and will frequently occur when consumption goods are scarce, such as in war time, and are rationed or unavailable.

Since national income is equal to consumption plus saving, it follows that the *propensity to save*, the relationship between a given level of income and saving from that income, is 1 minus the propensity to consume.[8] The factors discussed above as determining propensity to consume from a given income will also determine

[8] Since all income is consumed or saved, the propensity to consume from that income plus the propensity to save from that income must equal 1. Given income of a period of 10 and propensity to consume of 9/10, propensity to save will be 1/10.

propensity to save, since failure to consume is to save, by definition. Particularly significant, however, is the higher propensity to save from larger incomes. This is shown in Table 11 below. In a given year persons in the lowest income brackets may actually show negative savings, which means expenditure for consumption in excess of current income. As per capita incomes increase over a period of time the reduction in propensity to consume (increase in propensity to save) requires constantly expanding outlets for investment, and thus constitutes a special national income problem for mature" societies with an advanced technology. This special problem will be discussed in the following chapter.

TABLE 11 Income and Savings of Individuals by Income Levels, United States, 1935–1936 [9]

INDIVIDUAL INCOME LEVEL	NO. INCOME RECEIVERS (millions)	AGGREGATE INCOME ($ millions)	SAVINGS (% OF INCOME)	% TOTAL SAVINGS
Under $ 500	6.7	2,061	–38.8	–13.4
500– 750	5.8	3,615	–10.5	– 6.4
750– 1,000	5.9	5,130	– 4.9	– 4.3
1,000– 1,250	5.0	5,589	– 1.7	– 1.6
1,250– 1,500	3.7	5,109	1.9	– 1.6
1,500– 1,750	2.9	4,661	4.2	3.3
1,750– 2,000	2.3	4,214	5.8	4.1
2,000– 2,500	3.0	6,572	8.9	9.8
2,500– 3,000	1.5	4,005	12.0	8.1
3,000– 4,000	1.4	4,599	16.1	12.4
4,000– 5,000	.5	2,015	21.2	7.2
5,000– 10,000	.6	4,092	29.8	20.4
10,000– 15,000	.2	1,747	38.9	11.4
15,000– 20,000	.07	1,175	40.2	7.9
20,000 and over	.1	4,645	50.8	39.5
All levels	39.46	59,259	10.1	100.0

Disposition of Savings We have defined savings as income not spent for consumption. We define *investment* as the

[9] Taken from Temporary National Economic Committee, *Saving, Investment, and National Income*, Monograph No. 37, 1941, p. 17. Data taken by TNEC from National Resources Committee, *Consumer Expenditures in the United States*, 1935-36, Washington, 1939, p. 48.

expenditure of savings for new capital goods. The result of investment is thus a net increase in the capital equipment of the economy. This definition is by no means identical with the meaning which many individuals commonly attach to the term. For the individual, purchase of old corporate stocks or bonds from other individuals constitutes an act of "investment." When income is used in this manner it implies equivalent "disinvestment" by the seller of the security, and no change in the quantity of capital goods in use occurs. Our definition above, which is in line with general economic usage, refers to net social spendings for new capital goods during the period considered. It represents society's spendings for capital goods items in the net national product.

The process of investment may be seen in its simplest form when business enterprises spend their savings directly for net additions to their productive equipment. In this case business savings from Period 1 income are spent in Period 2 for production goods. But the largest share of savings is normally invested after transfer by the saver to the investor. Taxes transfer the savings of Period 1 income recipients to government, to be spent in Period 2 for government goods. Savings may be deposited in banks or used to purchase insurance or new corporate securities. In such cases the act of investment may be performed by the transferees (banks, insurance companies, or other corporations). It should be noted, however, that individual savings may be transferred to others by taxation, loan, or gift, and eventually be spent for consumption rather than invested. In such cases individual savings are not social savings at all, but are income consumed.

That part of income consumed is, by definition, spent for consumption. The remainder—savings—may not be wholly invested; *i.e.*, spent for investment goods. When savings are not invested they may be *hoarded*, or they may be disposed in such a manner as to create a *net decrease in the money supply.* Hoarding is represented by the idle accumulation of liquid balances, either in the form of cash or of bank deposits. It results from the satisfaction of individual or group "liquidity preference"; i.e., the desire to hold assets in highly liquid form. Factors entering into liquidity preference are the nature of day-to-day cash needs, prospects regarding future con-

tingencies requiring use of liquid funds, the attractiveness of current investment opportunities, and the prospects of return to be realized by investment at some future time rather than the present.

Uninvested savings may decrease the money supply. If individuals, businesses, or governments use savings to retire debt to banks, and these funds are not replaced by equivalent new loans, the total of bank deposits is decreased. If for any reason savings of Period 1 are not invested, the result is a disappearance of funds from the income stream of Period 2. Stated somewhat differently, failure to invest savings means lower effective demand for producers' goods, and a lower net national product in the following period.

THE CIRCUIT FLOW OF SPENDINGS AND SIZE OF THE NATIONAL INCOME

We have seen that income received in Period 1 may be spent in Period 2, creating income in Period 2. From our analysis of the disposition of income from one period to the next, we conclude that only that portion of Period 1 income spent for Consumption and Investment creates income in Period 2. That portion of Period 1 income hoarded is removed from the circuit flow and therefore has a deflationary effect upon income in Period 2. Thus, in any period, other things remaining the same, the size of national income is equal to or less than the size of income in the previous period depending upon the extent to which savings were not spent (*i.e.*, were hoarded or destroyed money).

To complete the picture of variables influencing the size of national income from period to period we introduce "dishoarding" and "new money." Dishoarding is the opposite of hoarding; it is the expenditure on consumption or investment of previously hoarded income.[10] Taken alone its effect upon national income is expansionary. New money may be introduced into the income picture by the making of loans by banks. The loan expansion potentialities of the

[10] President Truman's recommendation in his budget message presented in January, 1946, that the treasury cash balance be reduced by $8.7 billions during fiscal 1947 for current expenses and debt retirement is a good example of "dishoarding" by government. To the extent that such action reduces bank reserves, the dishoarding reduces the money supply.

banking system are only very roughly related to the volume of savings of the banks' depositors. The new money enters the system as loans to businesses, governments, and individuals and is spent by them for consumption or investment goods (or hoarded). It follows, however, that as loans are paid off, the new money of a previous income period is retired, and in any income period new money may be a negative quantity. Taken by itself, as we progress from one income period to the next, net increase of new money has an inflationary effect upon national income, while the effect of a net decrease is deflationary.

Consumption and Investment are the determinants of the size of national income in any period. *Income of Period 2 will be greater than that of Period 1 if Consumption and/or Investment is increased by net dishoarding or the use of net new money. Income of Period 2 will be less than that of Period 1 if Consumption and/or Investment is decreased by net hoarding or net decrease in use of new money.*

Let us set up these conclusions in terms of hypothetical numerical examples, showing determination of the size of national income in three successive income periods. Let us assume that national income of Period 0 is $10 billion, that $8 billion is spent in Period 1 for Consumption and $2 billion saved. We assume further that the whole amount of savings is invested, that there is no dishoarding, and there is no change in the money supply. National income in Period 1 is thus $10 billion, as shown below.

Period 0		*Period 1*	
National Income	$10 b.	→ Consumption	$ 8 b.
		→ Investment (= Savings)	2 b.
	$10 b.	National Income	$10 b.

In this case Period 1 income is equal to Period 0 income, since the whole Period 0 income was spent in Period 1 and no additional consumption or investment occurred from dishoarding or new money.

Let us assume that in Period 2, Consumption and Saving remain the same as in Period 1, but that only half of savings are invested.

We assume net hoarding to be $1 billion and no net new money introduced. The effect is:

Period 1			*Period 2*	
National Income	$10 b.	→	Consumption	$ 8 b.
Hoards	1 b.	→	Investment	1 b.
Spendable Income	$ 9 b.		National Income	$ 9 b.

National income in Period 2 has declined by $1 billion below that of Period 1 because $1 billion of Period 1 income was not spent in Period 2.

In Period 3, assume that Consumption remains constant, but that the business outlook is so promising as to attract $1 billion hoarded from Period 1 income into new investment, that Savings of $1 billion from Period 2 income are all invested, and that $1 billion of new money is invested. Period 3 national income is as indicated below.

Period 2			*Period 3*	
National Income	$ 9 b.	→	Consumption	$ 8 b.
			Investment:	
		→	Period 2 savings	1 b.
			Dishoarding	1 b.
			New money	1 b.
			Period 3 national income	$11 b.

In these examples we have assumed that Consumption has remained constant with changes in national income from period to period. Although there is some lag of Consumption behind changes in income—due primarily to consumption habits—total consumption for society as a whole will rise when income rises. Fuller employment at higher income levels encourages higher average consumption by more people. This is particularly true when prospects (rightly or wrongly estimated) for future employment and income are rising. On the other hand, consumption falls as income falls, though with some delay and against increasing resistance as the minimum of subsistence is approached by more persons.

Figure 1 shows the movement of National Income, Consumption, and Investment from 1919 through 1938. It will be noted that the

period 1922–29 showed persistently rising National Income, accompanied by a persistent rise in Consumption.[11] Prospects for consumers, in terms of rising employment and income, new products and stepped-up sales policies, and falling taxes, created the general feeling of permanent prosperity which justified an expansion of the standard of living. Investment (except in the depression of 1921–22) was at a relatively constant and high level, generated by the vigor of consumption expenditure and the anticipation of continued increase in spending.

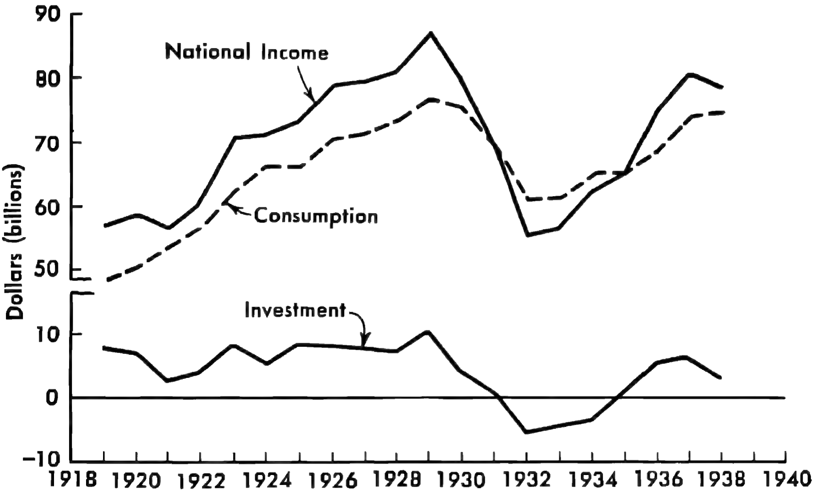


FIGURE 1 National Income, Consumption and Investment, U. S., 1919–1938[12]
(*In 1929 dollars*)

[11] The statistics used in Figure 1 are not for "income periods" as defined on page 88, but for years. They do not show income hoarded from period to period within the year. However, if income declines from year to year we realize that this reduction is due to hoarding of income realized in one or more of the "income periods" within a year. If income increases from one year to the next, the increment must be due to dishoarding or to the use of new money.

[12] Figures of national income and consumption outlay taken from Simon Kuznets, *National Income and Its Composition, 1919-1938*, Vol. 1, National Bureau of Economic Research, 1941, p. 147. Figures of investment computed as the difference between national income and consumption outlay.

The period 1930–38 demonstrates very clearly the lag in movement of consumption expenditures with marked change in national income. In 1932, 1933, and 1934, consumption expenditures actually exceeded national income, made possible by negative investment. Negative investment—or "disinvestment"—may occur for individuals by liquidation of investments, which in the last analysis implies living off individual capital. A business can disinvest by sale of liquid investments or by spending for other purposes that part of its gross product which should be used to replace depreciating capital equipment. For the economy as a whole 1930–38 was a period of using for consumption some of that part of gross national product which would normally have gone to replace depreciated capital.

Attention should be directed particularly, however, to the critical role of investment. While total consumption will rise and fall when national income rises and falls, short-run major changes in the magnitude of national income can almost always be accounted for by like changes in investment. Investment is highly unstable, quick to react to favorable or unfavorable market conditions. Although the relation of investment to national income is a case of the tail wagging the dog, it is this relation which is particularly pertinent in the determination of policy.

GOVERNMENT EXPENDITURES AND THE SIZE OF THE NATIONAL INCOME

When national income is below the level of substantially full employment of productive resources, there is wastage of productive power in the sense that goods which could contribute to general material welfare are not produced. By common acceptance, "full employment," at least as it refers to labor, does not imply employment to the limit of labor's physical endurance. It means employment to the maximum degree consistent with all of the elements of non-material welfare—reasonable length of work day, adequate vacation, and conditions of labor which make possible the profitable personal use of leisure time. "Full employment" further recognizes that at any moment of time there will be a body of unemployables who cannot be used in production, and that frictions in the system will at any moment produce a group of unem-

ployed persons who are in this position while in the process of changing jobs.

In what ways may public expenditure act to increase employment of productive resources, and thus increase national income? In terms of our analysis to this point we can conclude that government *may* increase total social expenditures for consumption or for investment merely through its own expenditures. Government may purchase consumers' goods directly for relief distribution or by distribution of relief funds to individuals who spend them for consumption. Or government may purchase (invest in) capital goods, such as public buildings, highways, or ships. Recognizing that the governmental contribution to national income is large,[13] it follows that fiscal policy is an important determinant of the level of national income. At given levels of taxation and expenditure government markedly affects income whether or not its policies are consciously directed toward influencing the level of income. This being the case, national income objectives will be among the most important elements of wise fiscal policy.

Government procures the funds which it spends (directly or indirectly) for consumption and investment from one or more of the following sources:

1. Current income
2. Hoards
3. New money.

If government takes funds from current income by taxation, whether or not this transfer and expenditure by government creates a *net* increase in expenditures depends upon what the original recipients of the income would have done with that income. If they would have hoarded it, there is reasonable probability that the transfer will increase national income in the next period. If, on the other hand, income which otherwise would have been spent for consumption or investment is transferred to government through taxation, there may be little or no effect upon national income in the following period. We cannot be categorical in our answers because of the various alternative effects of government policies upon the anticipa-

[13] See Chapter 1, pp. 1 and 2.

tions of producers and consumers. If government funds are procured through borrowing, there is greater likelihood that the funds thus procured will come from potential or actual hoards. Here also the question of confidence in government economic policy enters.

The same considerations apply when government funds are taken by taxation or borrowing from existing hoards. But financing public expenditure by new money will have the least likelihood of encroaching upon funds for private expenditure, unless the banking system has already stretched its loans to the limit of its reserves. For excess bank reserves are probably the least purposely-created hoards, and their use is thus least likely either to reduce the supply of funds available to others or to generate further hoarding for the purpose of maintaining liquidity. A more complete analysis of these factors is reserved for Chapter 5. It must be recognized, however, that government is in a position, both by the size of its potential transactions in national income and by the coercive nature of its acts, to influence in an important way the circuit flow of incomes and thus the size of national income from period to period.

It should be clear from our analysis that in an economy subject to wide cyclical variation in the size of national income, a policy of strict budget-balancing by government accentuates these variations. A balanced budget implies that current receipts from taxes are equal to current expenditures. When national income is low, the imposition of sufficient taxes to balance the budget places heavy burdens upon individuals and businesses, encouraging further decline in consumption and investment, and thus in national income. The removal of hoarded funds by taxation when incomes are low and profit expectations are low will (1) remove precisely those excess funds which are holding interest rates down, thus making borrowing for consumption and investment more difficult, and (2) remove a portion of those funds intentionally hoarded for purposes of liquidity, thus urging further hoarding to replace those hoards taxed away. If the budget is balanced by cutting expenditures rather than increasing taxes, the effect is clearly a reduction in expenditures for goods by government, thus forcing national income to a lower level. When national income is high and production is approaching its physical limits in terms of the supplies of the factors of produc-

tion, the budget may be put in balance (or remain in balance) only by reducing taxes or increasing expenditures. The former releases additional funds to individuals and businesses which, when spent, can result only in the creation of production bottlenecks and price inflation. The latter would increase spending for goods which government buys and thus produce the same results. We thus conclude that intelligent fiscal policy requires an excess of expenditures over receipts when national income is low or falling, and an excess of receipts over expenditures when full employment is approached.

LEVERAGE EFFECTS OF EXPENDITURES

The concept of the circuit flow of incomes over a series of successive income periods has prepared us to consider the total effect through time of an initial expenditure in one income period. The effects of that expenditure will be expected to continue in some degree through successive income periods, resulting over time in a total effect upon national income somewhat greater than the initial injection. Current economic usage employs the term "multiplier" to refer to the succession of subsequent expenditures *for consumption* created by an initial expenditure. The "acceleration principle" describes the succession of subsequent *investment* expenditures following from an initial expenditure. The two concepts obviously have a great deal in common, and can be combined for our purposes to describe the successive waves of expenditure for consumption *and* investment proceeding from the original stimulus of an initial expenditure.[14]

Suppose we assume that the marginal propensity of the economy to spend (for consumption and investment) is and remains at 1. This means that an additional dollar of income will be wholly respent, creating an additional dollar of income in each successive period. The total contribution which this original dollar of expenditure makes to national income will be determined by the length of time considered and the number of "income periods" during this time. There is no diminution of its effect from period

[14] This total effect upon both consumption and investment is called "leverage" by Professor Hansen. (*Fiscal Policy and Business Cycles,* New York, Norton, 1941, pp. 264–5.)

to period. Thus, assuming no "leakages" from the income stream, if one billion dollars of additional expenditure were made in Period 1 by the introduction of new money, and if there were four income periods in a year, the total effect of the original and successive expenditures upon national income for the year would be an increase of four billion dollars.

But let us assume that there are leakages—that the marginal propensity to spend is not 1 but $^9\!/_{10}$. This means that of an additional dollar originally spent, 10% "leaks out" into hoards or net reduction of the money supply with each succeeding expenditure-income period. The total effect of the expenditure of an original dollar and the expenditures (incomes) resulting from it in successive periods would be as follows:

Period 1 income from the original expenditure of $1.00	$1.00
Period 2 income created by Period 1 expenditure	.90
Period 3 income created by Period 2 expenditure	.81
Period 4 income created by Period 3 expenditure	.729
Period 5 income created by Period 4 expenditure	.6561
Etc., until exhaustion of effects	
Total additional income created	$10.00

We find that, under the assumptions made, the original expenditure plus the successive expenditures flowing from it in successive periods gives total additional expenditures over time of ten times the original expenditure.[15] Had we assumed the marginal propensity to spend to be ½, the total effect would have been twice the original expenditure.[16]

[15] The general formula for the sum of an infinite series is: $S = \frac{A}{1-r}$, where A is the first term in the series ($1.00 in our example) and r the ratio of any term to its immediate predecessor (9/10 in our example).

[16] Those readers familiar with "multiplier analysis" will recognize that we have in our discussion utilized that type of analysis to apply to total spending for consumption and investment, rather than to consumption expenditure along. While the Keynesian analysis makes the "multiplier" equal to $\frac{1}{1 \textit{ minus} \text{ the marginal propensity to } \textbf{consume}}$, we have made our "leverage coefficient" (Hansen's terminology) or successive spending multiple equal to $\frac{1}{1 \textit{ minus} \text{ the marginal propensity to } \textbf{spend}}$. Those who wish to pursue the

The over-all effect of a given additional expenditure upon the level of national income will thus depend importantly upon the willingness to re-spend income. The total income-inducing effects of an original increment to expenditure will be large or small, depending upon the anticipations of producers and consumers. These anticipations will be strongly influenced by the course of the business cycle. They may be further conditioned by the source or method of new spending. It is conceivable, for example, that the anticipations of producers and/or consumers might be adversely influenced by the very fact that the new expenditure program is undertaken by government. We shall have more to say about this aspect of the matter in the next chapter. But given the propensity to spend, the leverage effects of new expenditure by government are exactly like those of new expenditure by private spenders.

Let us relate our analysis more closely to the matter of a positive governmental expenditure program to promote full employment in a period of underemployment. Let us assume that a level of income equal to \$12 billion per income period will provide full employment. We also assume (somewhat inaccurately) that we may depend upon a constant level of private expenditure from period to period of \$10 billion. And finally we assume that the marginal propensity to spend income (for consumption *and* investment) is $^{95}/_{100}$ throughout the series of periods.[17] Under these assumptions the necessary successive injections by government into the income stream to maintain a per-period level of \$12 billion would be as shown, page 107.

We reiterate that the magnitude of the required injections depends upon the propensity to re-spend. This propensity is not likely to remain constant through a series of income periods. The more important ingredient of the propensity to spend will be, in most

refinements of this matter are referred to P. A. Samuelson, "Interactions Between the Multiplier Analysis and the Principle of Acceleration," *Review of Economic Statistics*, May, 1939, p. 75 ff., and reprinted in *Readings in Business Cycle Theory*, Philadelphia, Blakiston, 1944, p. 261 ff.

[17] There are elements of unreality in this assumption. An increase in total national income will likely lower the marginal propensity to consume, while it will likely increase significantly the inducement to invest. It appears impossible to generalize concerning the over-all effect upon the propensity to spend.

	Income Period 1 ($ billion)	Income Period 2 ($ billion)	Income Period 3 ($ billion)	Income Period 4 ($ billion)	Income Period 5 ($ billion)	
Income Created by Private Spending	10.0	10.0	10.0	10.0	10.0	etc.
Period 1 Government Spending Required (and its successive income effects)	2.0	1.9	1.805	1.714	1.629	etc.
Period 2 Government Spending Required (and its successive income effects)		.1	.095	.089	.084	etc.
Period 3 Government Spending Required (and its successive income effects)			.1	.095	.089	etc.
Period 4 Government Spending Required (and its successive income effects)				.101	.096	etc.
Period 5 Government Spending Required					.101	etc.
Total Income Per Period	12.0	12.0	12.0	12.0	12.0	etc.

instances, the propensity to invest. If the expenditure program is inaugurated in a period of falling producer anticipations (falling marginal propensity to invest), the fall may be arrested and reversed by the spending program itself. In such instances the necessary successive injections would be smaller than those indicated in our example, and could easily fall to zero, as private and "ordinary" government spendings provide a full employment level of income.

Attempts to increase national income by expenditure of new or dishoarded money, or to head off potential decreases in national income by taxing hoards and converting them into expenditure, will be more or less successful depending upon the propensity of the economy to continue spending. If marginal propensity to spend is 0 (marginal propensity to hoard = 1), an increment of new expenditure will have no effect after Period 1. Under such circumstances, government could compensate for deficiencies in income and employment only by injecting new or dishoarded money into the stream equal to the deficiency in each income period. On the other hand, as marginal propensity to spend approaches 1 (marginal propensity to hoard approaches 0), the leverage effect of an increment of new or dishoarded money is high, and an original in-

jection continues effective in the creation of national income for a longer time.

The success of a spending policy in promoting a full employment level of national income is thus seen to depend upon that bundle of economic conditions which determine whether or not the economy is in a mood to consume and invest or to hoard. Indeed, public policy itself may condition economic confidence, and thus play an important part in determining the economic mood. We shall analyze this array of fiscal-economic problems in the following chapter.

The student who has mastered the contents of this chapter is in a position to see the elements of truth in the economic "heresies" and paradoxes refreshingly overstated by Professor J. M. Clark: [18]

"The older economics had a kinship with Newtonian physics, while some of the features of the newer thought have at times been spoken of in terms of relativity, an expanding universe, or Alice in the looking glass. One must keep running to stay in the same place. Because the pendulum has been pushed out of plumb, it tends (at least for a while) to go farther instead of returning. Ten plus one equals thirteen, and ten minus one equals seven. The way to increase the effective demand for labor is to raise its price, making it cost the employer more to hire workers. We cannot employ all our young would-be workers partly because there are not enough of them—the population is not growing fast enough. Saving is a public vice, living beyond one's means as a nation is the road to riches, and the crowning glory of economic science is the devising of a contraption for lifting ourselves by our bootstraps."

RECOMMENDED READINGS

Hansen, A. H., *Economic Policy and Full Employment*, N. Y., McGraw-Hill, 1947, Chapter 3.

An excellent chapter on national product, national income, and the ingredients of aggregate demand.

National Income Supplement to Survey of Current Business, July, 1947.

Discussion of the statistical determination of national income. Especially significant in view of the importance of Department of Commerce income figures. This pamphlet analyzes the method to be used in computing income from this date onward, and revises earlier figures to provide a continuous series.

[18] "Investment in Relation to Business Activity," in *Economics and Industrial Relations*, Philadelphia, University of Pennsylvania Press, 1941, pp. 37–8.

Hansen, A. H., *Fiscal Policy and Business Cycles,* N. Y., Norton, 1941, Chapters 11 and 12.

Especially useful in combining the theory with the practical considerations involved.

Chandler, L. V., *Introduction to Monetary Theory*, N. Y., Harper, 1940, Chapter 6.

Extremely clear statement of the saving-investment theory of income.

Halm, G. N., *Monetary Theory,* Second edition, Phila., Blakiston, 1946, Chapter 21.

Especially useful in explanation of the principles of the multiplier and acceleration.

CHAPTER 5

GOVERNMENT SPENDING TO PROMOTE EMPLOYMENT

It is presumed to be unnecessary to argue at length that underemployment of the factors of production involves serious sacrifice of potential economic welfare,[1] and that underemployment of labor in particular involves serious hardship to a large segment of the population. This is a heavy price for society to pay, and government of such a society is constrained by considerations of respectability and responsibility to exert whatever influence and power it possesses to mitigate or prevent underemployment and its consequences.

We have seen in the previous chapter how maintenance of a high national income requires that income be spent to produce new income. In this chapter we analyze the possible form and effects of a program of government spending to compensate for deficiencies of private expenditure and to generate increases in private spending.

CAUSES OF UNDEREMPLOYMENT

Any governmental program calculated to mitigate or correct normal tendencies toward underemployment must begin by careful analysis of the conditions which produce underemploy-

[1] Senator O'Mahoney, in testimony before a subcommittee of the Senate Committee on Banking and Currency (*U. S. Senate, S. 380*, 79th Congress, 1st Session, July 30, 1945), quoted figures from the Bureau of the Census showing that the deficiency in national income below the full employment level between 1929 and 1940 represented a loss of production amounting to $355 billion.

ment. Otherwise the policy lacks direction even though ultimate objectives may be perfectly clear. We may distinguish two general categories of causes of underemployment: those associated with the shorter-term fluctuations of business activity, and therefore employment, which we call the "business cycle," and those associated with a "mature" economy, in which the frontiers of economic expansion have pushed far toward their elastic limit.

The Business Cycle Business cycles are recurrent fluctuations of business activity observable in statistics of output, income, and employment. The cycle moves from prosperity to depression and back again, not in a uniform span of time, nor with a uniform degree of intensity. The detailed causes of the business cycle are undoubtedly many and varied, and there are many "theories" which attempt to explain it. These theories differ both as to kinds of causes and as to emphasis upon particular influences.

For analytical purposes the important thing is to study the movement from one phase to the next. This directs the analysis to consideration of the turning points—the change from prosperity to depression and from depression to prosperity. We know from all measures of business activity that neither prosperity nor depression has ever been permanent. The fundamental question of business cycle analysis is, Why?

We shall not attempt to study carefully the areas of agreement and disagreement among particular cycle theories. For our purposes it is adequate to study causes and effects at a level somewhat below the surface and somewhat above the detailed depths of particular analyses. We begin with the recognition that general increase or decrease of production and employment is the result of conscious choice—it does not just happen. In an economy where direction of the productive process is in the hands of enterprisers who are producing for more or less remote markets, the choice to increase or decrease will be determined by enterprisers' expectations as to the prospects for adequate return. These prospects are largely dependent upon estimates as to the nature of future demand for products. Rising demand, under typical conditions of "sticky" costs, promises both larger profit margins and larger volume of sales, while falling demand produces the opposite consequences.

If profit expectations are rising, the urge to expand output to take advantage of improving markets results in increased employment of all types of productive agents—labor, capital, and natural resources. If profit expectations are falling, there is an urge to contract the quantities of productive agents employed. If, as is unlikely over more than a very short period, profit expectations are constant, the tendency is simply to replace goods used up—inventories or equipment.

The desire to expand, contract, or simply to replace has different and important consequences at different productive levels. The producers' goods industries produce for markets in which their sales are (1) for replacement of capital goods constantly wearing out, and (2) for net increase in productive capacity. The demand for their products is a "derived" demand, and whether it is great or small depends upon the anticipations of other producers, most of whom are producing for consumer markets. Decisions to expand output result in demand for more producers' goods; decisions to contract mean disappearance of demand for producers' goods for plant expansion and a decline in demand for replacement goods. Decisions to maintain production at a given level mean demand for producers' goods only for replacement. Thus a decision by a producer close to the consumer market to expand or contract, even by a small amount, has accentuated effects upon the demand for producers' goods. If industry has been expanding, the decision to cease expansion is a *contraction* in demand for capital goods. This fact of magnification of derived demand is referred to by economists as the "principle of acceleration." It accounts for the business cycle phenomenon of much more violent fluctuation of business activity in the producers' goods industries than in the consumers' goods industries.

The business cycle contains self-generating forces which tend to terminate the phase of prosperity or of depression. In a period of prosperity anticipations [2] are rising. Markets are expanding, and

[2] "Anticipations" is here used in the sense in which it is used by James W. Angell in his *Investment and Business Cycles*, New York, McGraw-Hill, 1941 (p. 15). It is a collective concept, indicating the combined influences upon the degree of optimism concerning the economic future, current need for liquid funds, tradition, and education and skill. It refers to the anticipations of both producers and consumers.

production expands by the employment of factors of production left idle during depression. The prices of goods tend to rise more rapidly than do costs of production, and profit margins are rising. Rising profit margins and expanding markets further improve the anticipations of producers. Increased employment and wages, the accumulated demand for goods which consumers could not afford during depression, and the prospect of rising prices combine to increase demand for consumption goods.

Why does this not go on indefinitely? There are several possible reasons, operating in varying combinations and degrees in different cycles. As the economy expands, costs of production must at some point increase at a rate which at least stabilizes profit margins, and may narrow them. When the factors of production approach full employment the prices of those factors rise comparatively rapidly. This may dampen anticipations so as to lead enterprisers to stop expansion of productive capacity, which is the equivalent of a reduction of demand for producers' goods. Or the crisis may come when the banking system has extended itself to the limit in financing expansion of production or consumption. When further expansion is difficult or impossible, contraction in demand for producers' goods occurs.

Anticipations may cease to rise or may fall because of production bottlenecks in the expansion process, by government action of a restrictive sort, by fear induced by financial failures or defaults, or by occurrences in the international markets. These may be termed external influences, as distinguished from the self-generating internal influences mentioned in the previous paragraph.

Whatever the cause or combination of causes, expansion slows down, with contractive effects on some segments of the economy. Falling anticipations in these segments produce unemployment, retirement of debt, hoarding, and a general battening-down against the weather which has cumulative and epidemic effects upon the economy. This is recession and depression.

Deflation feeds upon itself, with declining national income from period to period. Prices are falling and costs of production fall less rapidly at first, causing more rapid narrowing of profit margins or widening of loss margins. At some point in the decline adjustments will have occurred which arrest falling anticipations. Widespread

unemployment and competition for jobs may so reduce labor costs as to arrest the trend toward further unemployment. Idle funds and excess bank reserves may markedly lower the cost of loans and the standards required of borrowers. Inventories may have reached a low point where their replacement requires replacement of productive equipment. Depreciation and obsolescence may have so reduced productive capital equipment as to create a need for replacement on a significant scale, creating respectable new demand for the products of capital goods industries. Government relief and public works policies may check the decline in consumption or actually increase it. Or other aspects of monetary policy or recovery programs may produce the desired results. Whether the causes are internal or external, there will somewhere be a lower turning point, at which point anticipations begin to rise.

No attempt has been made to adjudicate disagreements among the proponents of particular business cycle theories, or to resolve differences of emphasis or point of view. But it is believed that the important influences, the internal and self-generating and the external and irregular, have been briefly brought into view. Before discussing counter-cycle expenditure policy we shall briefly describe underemployment in a "mature" economy.

The "Mature" Economy The "mature" economy has been dealt with in economic literature at arm's length, since it is unpopular almost to the point of treason to go on record as accepting this view of the economy. In the United States, optimism has been such an important ingredient of the business state of mind that to sound a note of pessimism is generally interpreted as cynicism or "selling America short." This curious reaction is in interesting contrast to our willingness unhesitatingly to brand the economies of other countries as decadent. Yet prolonged depression, and prosperity phases which produce less than full employment, have raised doubts which require some consideration of fiscal policy *if* unemployment turns out to be a permanent feature of the economy. The concept of the mature economy runs in terms of limited opportunities for new investment. In an old country, without new land to be settled or brought into production, without new natural resources to be exploited, and with a relatively stable population, one type of op-

portunity for expansion of new investment disappears. The frontiers on which the economy may advance become intensive and not extensive. During the nineteenth century the exploitation of new lands and resources, and production for a rapidly increasing population, resulted in an expansion of markets which produced a consistent shortage of capital for production. Under such circumstances there was no long-run danger of an excess of saving over opportunities for investment. Rather the exploitation of markets and resources required investment beyond the capacity of the American economy to save, and expansion was financed to a considerable degree by borrowing from abroad.

In an economy lacking possibilities for extensive expansion opportunities for new investment must be found in the advance in technology, the substitution of new processes for old, the development of new products, and in general the raising of the standard of living. So long as there are large areas of human wants unsatisfied by economic goods, and so long as production by more efficient methods is possible, the intensive frontier exists.

It is, however, not a satisfactory answer to call attention simply to unsatisfied wants and inefficient production methods. Unless enterprisers are willing to undertake production of new goods or of more old goods, and to adopt new methods of production, the opportunities for new investment do not in fact exist. And the situation is complicated by the fact that an old economy may well be a high-income economy, in which propensity to save is high. Under such conditions opportunities for new investment must be extensive and rising, unless increased savings are to be hoarded and thus deflate the income stream below the level necessary for full production.

Monopolistic practices, such as restriction of entrance of new firms into the market by control of patented processes or by other means, high price policies, and purchase and sterilization by hoarding of revolutionary techniques of production are destructive of expansion opportunities on the intensive margin. In the same category are monopolistic practices of labor in stretching work, requiring the employment of stand-by laborers, and resistance to introduction of new products and processes. These practices are destructive of the only frontier remaining after disappearance of the

extensive frontier, and thus promote the characteristics of "maturity" stagnation.

A mature economy would be subject to cyclical fluctuations. However, at the peak of the prosperity phase, equilibrium might be attained at less than full employment because of the high propensity to hoard, and periods of prosperity would be comparatively short and infrequent. Net return on invested savings, after deducting for risks and the cost of investment, is inadequate to offset the liquidity preference of savers. In such an economy depression is likely to carry the curve of business activity to lower levels and to keep it there for longer periods of time.

It may be concluded that the American economy contains some elements of maturity, even though it does not possess all of the characteristics of a mature economy. From the point of view of government expenditure policy, underemployment diagnosed as resulting from "maturity" would be given treatment essentially like that resulting from the business cycle, though in the former case the treatment would be prolonged and result in constant increases in public debt unrelieved by periods of debt retirement.

The treatment of underemployment—and deficient national income—in terms of government expenditure policy is discussed in detail in the sections following.

COMPENSATORY SPENDING IN THE CYCLE

By compensatory spending we mean spending by government to offset deficiencies in private spending. On a modest scale compensatory spending when national income is falling may be undertaken to offset further decline and to stabilize economic activity somewhere below the full employment level. More ambitious use of compensatory spending would impose upon government the obligation to spend in order to reach and maintain national income at the full-employment level. Finally compensatory expenditure in recession or depression may take place under conditions which reverse declining anticipations, encouraging private spending. If this occurs, the government spending is of the "pump-priming" variety; by artificial support of national income it both stands off further decline and promotes normal recovery. Compensatory spend-

ing thus implies substitution of government spending for private spending in order to maintain national income at a given level. When such a policy is pursued during recession and depression, it involves heavy government expenditure; during recovery tapering-off of compensatory expenditures is indicated, and in prosperity when the rate of private spending is rapidly rising or dangerously high government spending may well (should) become negative, *i.e.*, an excess of taxation over expenditure. Compensatory taxation will be discussed in later chapters; in the following sections we discuss compensatory expenditure under two sets of circumstances: (1) anticipations falling, and (2) anticipations rising.

Case I: Anticipations Falling It will be recalled that "anticipations" includes both the anticipations of producers and of consumers. It thus is a composite of forces tending toward expansion (rising anticipations) or contraction (falling anticipations) of private expenditures for consumption and investment.

In the recession and depression phases of the cycle the propensity to hoard is rising. Producers are cutting costs to feasible limits in terms of current demand; they are using income to retire debt, maintaining minimum inventories, and not replacing depreciating equipment. They are placing themselves in a relatively liquid position. Consumers are reducing consumption toward minimal limits, paying off debts when possible, and saving in highly liquid form (hoards) to prepare for continuation of the cyclical downswing, in terms of reduced current income and of unemployment. It will be noted that the propensity to hoard among producers and consumers results both in the retirement of loans (new money) and the building up of liquid bank balances (hoards). The hoarding largely occurs through inability of the banks to find loan outlets for these funds.

Under such circumstances, the objective of compensatory spending is to pump into the expenditure stream in any income period enough government funds to offset the income which is privately removed from the circuit flow in that period. It follows that government expenditures must thus occur in increasing volume from period to period as long as the propensity to hoard is rising. This is the meaning of Professor Clark's statement quoted at the end of the last chapter: "One must keep running to stay in the same place."

For under falling anticipations, private expenditure *and government compensatory expenditures* are subject to increasing propensity to hoard. The leverage effects of both private and public expenditures are low and falling. It should be evident that compensatory expenditures should be injected into the income stream in such a way as to minimize leakages into hoards and thus maximize the multiplier effects. Several characteristics of such compensatory spending are thus indicated.

1. Compensatory expenditures while anticipations are falling must be deficit expenditures; that is, current expenditures must be in excess of current revenues. This will naturally be the case, since under declining income government revenues will fall under given tax rates, while the new expenditures represent a net addition to total government expenditures. However, it is important that revenues fall, as attempts to increase tax revenues are very likely to introduce a new and negative pressure upon private spending through their effect upon anticipations. To some it has appeared attractive to procure the funds for compensatory expenditure by taxation of hoards. In this way hoards would be transferred through government to persons with high propensity to consume, thus accomplishing a higher degree of re-spending of income than would otherwise occur. But hoards serve two useful purposes when anticipations are low. They frequently represent a planned response to the desire for liquid savings, and if taxed away would be at least partially replaced by new hoards. Furthermore, they help to hold interest rates down, creating an atmosphere in the capital markets in which some borrowing can take place even when profit anticipations are low. Thus a program of compensatory expenditure accompanied by attempts to keep the budget currently in balance is almost certain to be accompanied by a further net decrease in private expenditure, vitiating the effects of the public spending. The program must thus be financed by borrowing.
2. Borrowing to finance a compensatory expenditure program would in most cases have less negative effect upon private propensity to spend if funds were procured out of "new money" created by

the banks rather than from individual savings. The "new money" loans extended by the banks to government should be created out of new member bank reserves made available by the central bank. This would obviate any tightening of bank credit (increase in bank loan interest or higher requirements for borrowers) to potential private borrowers for consumption or investment. It may be objected that if government were to borrow from private savers only on a voluntary basis such borrowing would not compete with private expenditure. However, when anticipations are low and falling, interest rates must be low if private borrowing is to occur. Under high liquidity preferences, borrowing by government from private savers would likely skim off precisely those funds which would be available to private borrowers at lowest interest, or at least reduce the excess of potential loanable funds which maintain constant downward pressure on interest rates.

3. In the interest of accomplishing maximum income results from a given expenditure, compensatory funds should be so spent as to be subject to the least possible channeling into hoards. This principle would certainly justify first expenditure upon projects (relief or other) which put government-spent funds into the hands of those who because of unemployment or low income would re-spend their new income on consumption first, which increase is transmitted to investment for replacement or expansion of productive capacity. On the other hand, key improvements such as highway construction, irrigation and water power projects may so reduce costs as to create directly expanded business investment for more economical production. Present knowledge of the relative leverage effects of expenditure on alternative objects is highly inadequate for planning purposes; the principle, however, is clear: the original injection should take place under conditions conducive to the greatest amount of re-spending of these funds. Some further consideration of this problem will be found in the following chapter, although the reader is warned not to expect simple and categorical answers.
4. The program of compensatory spending must itself contribute as little as possible to the fall in anticipations. The psychological

or "confidence" aspect is material to the success or failure of the program. Confidence is an elusive factor, and it is extremely difficult to forecast the effect of policy upon it. It may be shaken by the impact of growing government deficit upon orthodox financial mores. Genuine doubt concerning the ability of government to meet in the future its growing obligations, with the consequent effects upon individual and institutional bondholders, may generate a lack of confidence. Uneasiness in view of the future high levels of taxation to meet government debt obligations may contribute to a lowering of anticipations. Fear of punitive acts against the business community whose weakness or failure has caused depression, and fear that government projects will invade the field of private business, may reduce the leverage effects of both private and public expenditures. The amount of government money to be injected into the economy in any period for compensatory purposes will thus depend in an important way upon the influence of the factor of confidence.

Case II: Anticipations Rising We here assume that anticipations are rising; that the propensity to hoard is falling, the multiplier is increasing, and through operation of acceleration there are growing opportunities for private investment. Under these conditions government will control its spending with a view to orderly expansion of the private economy toward full employment.

In the first stages of recovery compensatory spending will remain fairly high. Too rapid withdrawal of government support of the income stream might well create premature recession The atmosphere should be conducive to the continual rise of anticipations. Efforts to balance the budget should not be pressed strongly at this stage, either through major decrease of expenditure or increase in taxes.

As recovery progresses on a firm foundation, government injections into the income stream should be progressively reduced. Just as in the downswing these successive injections increased, so in the upswing they decrease, although they cannot be allowed to disappear while idle capacity to produce remains in the economy. While in the downswing the successive injections increased because

of increase in the propensity to hoard, in recovery they may be allowed to decrease because of rising propensity to spend. Thus in recovery the gap between current employment and full employment would eventually be filled by private expenditure; government may speed the closing of the gap by further expenditure.

In the later stages of prosperity—as full employment is approached—government will have retired completely from compensatory *spending*. The level of government expenditures will be determined by the current cost of performing necessary governmental functions. The level of taxation will have increased, both from natural causes arising out of increase in national income and from increased tax rates designed to produce current surpluses and debt retirement. As full employment is approached, confidence is vigorous, and takes increased taxes in its stride. At this stage surplus is used to retire a part of the debt incurred by the previous deficit spending policy.

Tax increases will apply the brakes to too rapid "boom" expansion and tend toward stabilization of the rate of expansion. This occurs in any income period by draining off into government a part of the inflationary funds in the market, thus stabilizing effective demand. And to the extent that tax receipts are used to retire debt in the hands of private individuals, these funds tend to be redistributed to those with relatively lower propensity to consume. If the rate of increase in consumption is stabilized, the acceleration effects upon the producers' goods industries tend to be stabilized.

Failure of government to cut expenditures as full employment is approached would contribute to the appearance of bottlenecks in the expansion process. As the factors of production become relatively scarce it is improper that government continue to compete with the private economy for those factors. To the degree that it does compete it contributes to the development of bottlenecks, and helps to bid up the prices of those factors. Government itself may thus bring about a crisis in anticipations.

Fiscal policy during a period of rising anticipations is thus conditioned by (1) the remoteness of full employment, (2) the degree to which anticipations currently depend upon deficit spending. In the early stages of recovery both considerations indicate continua-

tion of deficit spending. In the later stages deficit spending gives way to surplus taxation, the objectives being to apply the brakes to the boom and to prevent excessive price increases while contributing little to the standard of material welfare.

THE THEORY OF PUMP-PRIMING

Our discussion of government expenditures during the depression phase of the cycle has so far run in terms simply of offsetting private deficiencies in national income. The policy of "pump-priming" is based upon the belief that if public funds are injected into the income stream in sufficient quantities and under proper circumstances they will reverse the trend of anticipations and generate recovery. This implies that the multiplier effects will grow and that the principle of acceleration will operate positively.[3]

Whether or not a spending program can engineer recovery depends upon whether anticipations actually do reverse themselves. If spending reverses anticipations, the recovery can proceed normally through individual and business decisions to expand consumption and investment, although it will be speeded up in the earlier stages by continued government spending. The sheer weight of government funds spent for compensatory purposes may stabilize the anticipations of consumers as a group. And if anticipations are momentarily constant while compensatory spending continues, the propensity to hoard among consumers will probably fall in subsequent income periods. This is tantamount to a rise in anticipations. Stabilization of consumption among a large group of consumers at a time when inventories are low and production equipment impaired through failure to replace depreciation may well at least arrest the declining trend of investment. If so, and government expenditure continues, a normal recovery will likely set in.

Whether or not spending can go beyond offsetting normal declines of consumption and investment, and actually induce recovery, depends upon several factors. Expenditures must be relatively large,

[3] So that "10 plus 1 [will equal] 13," as Clark mentions. The popular emphasis upon pump-priming and the positive multiplier must not encourage us to overlook the fact that "10 minus 1 equals 7." Thus, compensatory spending to offset negative multiplier effects is equally important in welfare terms with pump-priming.

and it must be understood that spending policy will continue in volume and in duration until such results are attained. Some or all of the factors discussed above must have successfully reduced the rate of hoarding and thus increased the multiplier. On the whole, a program of compensatory spending which is a little more than successful enough merely to fill in the troughs caused by deficiencies in private expenditure will almost certainly have some pump-priming effects. And exactly the same forces limiting the effectiveness of a compensatory program will make impossible the generation of recovery prior to the "normal" turning point in the uncontrolled cycle.

It may be repeated that policy may contribute to the fall of anticipations. If such results occur, not only will pump-priming be unsuccessful, but the operation of the normal readjustment forces in the cycle may be postponed. In this case, recovery from normal causes will come later than it would have come without governmental interference. Great as are the possibilities for good in a spending policy, there are as well possibilities for evil. The *type* of policy thus becomes significant. It is not enough just to spend public money; the money must be so spent as to get the maximum leverage effect.

CONDITIONS OF BUSINESS CONFIDENCE

The success of depression fiscal policy is so dependent upon the behavior of anticipations in terms of "confidence" as to require some observations concerning its culture. "Confidence" is difficult to measure; it is even more difficult to assay. It is in essence personal, yet subject to a remarkable amount of transmission from person to person. It is "catching," and thus subject to generation or degeneration through salesmanship or propaganda. And it is by no means always founded upon reason. It is fostered by orthodoxy and weakened by innovation which transgresses the boundaries of orthodoxy. Because it is so defiant of analysis, we are at the mercy not only of the genuine article, but also of unreasonable facsimiles of it.

Confidence has its most critical influences upon counter-cycle fiscal policy during the period of deficit spending. It is then that

what appears to be an eminently promising program may, by running afoul of confidence, either produce indifferent results or results distinctly undesirable. Since the alternative to government activity to induce recovery is waiting out the depression, it is important to study those factors and techniques which show promise of making expenditure policy successful.

Undoubtedly experience with a policy helps to allay fears of its consequences, particularly if that experience has been successful. But even if it has not been markedly successful, the ability of hindsight to point out weaknesses in former techniques will help to foster support on the next attempt. The American experience in the thirties has probably gone a long way toward allaying fears of deficit spending in considerable volume during depression. Public psychology relative to relief expenditure is similar to that relative to war—it is an obligation to be stoically assumed whatever its expense. That expense is one of the costs of maintaining an economy subject to intermittent depression. Expenditures for relief are compensatory expenditures, and are injected into the declining income stream under circumstances favorable to the objective of offsetting and possibly reversing that decline. Popular acceptance of relief spending is at least to a limited degree tantamount to acceptance of deficit spending. If deficit spending for relief has become orthodox, public psychology has gone a long way toward acceptance of government as an auxiliary motor in the economy.

The sheer weight of economic literature explaining the role of government spending in depresion is probably a second factor in promoting confidence in such a policy. Such an extensive area of agreement among specialists, not only as to the practical obligation of government, but as to the real possibilities of success, should have conditioned public confidence. The spending experience of 1933–38 did not have the benefit of articulate theoretical support such as is likely to exist in any future depression.

There is no doubt that studies of the deficit spending experiences of 1933–38 have pointed to conclusions which in the future will allow government to embark upon such a policy much better prepared to avoid earlier mistakes in the treatment of the confidence factor. It is to be hoped that (1) the policy will not be accompanied by tax in-

creases in an attempt to attain budget balance; (2) Federal Reserve policy will be directed toward the creation of new excess reserves for the member banks, from which government will borrow;[4] (3) the policy will be accompanied by the minimum of necessary punitive acts against business, either regulatory or competitive; (4) a real attempt will be made to sell the policy to the public as a program of economic engineering, by (a) stressing its recovery as distinguished from its relief aspects, (b) marshaling the impressive body of theoretical and statistical evidence favoring the policy, (c) guaranteeing expenditures in amounts and for the duration required to bring about recovery, and (d) utilizing a calendar of public works previously determined upon and accenting those projects capable of meeting long-run public need.

Some interest attaches to the experience of the United States with deficit spending during the period 1933–38. Studies of that experience[5] indicate that public spending was reasonably successful as a compensatory device, that it prevented national income from falling as far as it otherwise would have fallen. Particularly in 1934–36, when deficit expenditures were relatively high, public spending was largely responsible for marked net increase in national income. Furthermore, the abrupt reduction in expenditures in 1937 is regarded as largely responsible for the precipitous recession which occurred in that year and lasted into 1938.

As a pump-priming device, however, public expenditure in the thirties must be regarded as almost wholly unsuccessful. Anticipations did not rise, as indicated by the fact that propensity to hoard appears to have remained constant or to have increased during the period. Such private investment as did occur appears largely to have been made simply to provide productive capacity for current con-

[4] This will be accomplished principally by open market purchases of securities by the Federal Reserve banks. These purchases may be from member banks or from individuals and businesses. The Federal Reserve funds paid out—whether to banks or others—find their way into the member banks. As these new funds are deposited by member banks with Federal Reserve banks, new legal reserves are created. Reduction of reserve requirements is another possibility.

[5] See James W. Angell, *Investment and Business Cycles*, N. Y., McGraw-Hill, 1941, pp. 221–34, and Sherwood M. Fine, *Public Spending and Post War Economic Policy*, N. Y., Columbia, 1944, Chapter 6.

sumption needs, and did not represent investment for expanding future output.

Must we, therefore, conclude that there are no pump-priming potentialities in public spending? Generalization from the one experience with something approaching a pump-priming project is extremely dangerous. To say that pump-priming is always doomed to failure because it failed in 1933–38 policy is comparable to the generalization: "All Indians always walk in single file; at least the only Indian I ever saw did."

Certain characteristics of the 1933–38 policy may be specifically criticized as militating against its possible success. First, it was half-hearted. Expenditures were not large enough in 1933–34 even for compensatory expenditures. All through the period deficit expenditures were made primarily with a view to relief, and only secondarily was the hope expressed that as a by-product the economy might be strengthened. Deficit expenditures were usually accompanied by protestations that attempts should be made to balance the budget in each next fiscal year. This is hardly conducive to a rise in private anticipations; what is required is the pledge that the auxiliary motor of government will provide support as long as required and in the amounts required. Second, the constant dread of a series of unbalanced budgets and the desire to redress inequalities in income led to relatively high income and commodity taxation. The reverse type of compensatory tax policy was indicated.

Third, the spending program was haphazard. The very newness of the policy of deficit spending meant that no program of public projects was ready to be undertaken. There was a great deal of fumbling for recovery tools. Attempts to force reemployment at higher wages under NRA were hardly calculated to raise employers' anticipations, even under the artificially generated enthusiasm for recovery reflected in parades. And government's *quid pro quo* to business for pledges to hire more men at higher wages was codes of "fair competition," which in practice meant (and still does mean) the antithesis of competition. The consequence was price rigidity which is an arch-enemy of adjustment in the business cycle. The gold policy and the scuttling of the World Economic Conference in 1933 rightly or wrongly suggested the probability of monetary and

trade manipulation, the nature and results of which could not be forecast. Social Security, inaugurating a new concept of labor welfare and a new crop of taxes, was not generative of confidence in the breasts of business enterprisers. Contributing similarly to the decline of producer anticipations was the National Labor Relations Act, long overdue but ill-timed for success of a pump-priming project.

No opportunity is sought to criticize the reform measures *per se* taken during the thirties. The timing was unfortunate from the point of view of counter-cycle fiscal policy. It can be convincingly argued that it was "then or never." For our purposes, however, the important point is that many major reforms are now on the statute books and integrated into the economy. Major reforms pending adoption should be adopted—providing they are genuine reforms—during the phase of fuller employment, and not allowed to collide with counter-cycle spending policy when anticipations are low.

COMPENSATORY SPENDING IN A "MATURE" ECONOMY

The consequences of "maturity," which was described early in this chapter, are an economy whose periods of prosperity may stop short of full employment and whose periods of depression will be longer and deeper than those of an expanding economy. These results are commonly termed "secular stagnation" by economists.

Counter-cycle fiscal programs discussed earlier in this chapter are generally applicable to both "mature" and expanding economies for identical reasons. The exception is that deficit spending even at the top of the cycle is necessary in order to promote full employment in a naturally stagnant economy. Thus, the prospect is for persistent government deficits and constant additions, though by varying increments, to national debt.

The difficulty, as in the case of cyclical reduction in income, lies in the inadequacy of investment from savings. The solution—if, indeed, there is any—lies along one or both of the following lines: (1) channeling of the excess of savings over investment into consumption, or (2) increasing the attractiveness of investment. Both of these aim at reduction of hoarding. And as before, each may be

thwarted by a decline in confidence which, taken by itself, reduces anticipations.

Contemplation of the prospect of continued annual deficits might well have accentuated adverse influences upon anticipations. On the other hand, if reasonably considered, such a policy of government investment in national product is economic—and identical with similar private investment—so long as the carrying charges on the debt incurred are not equal to or in excess of the income generated.

It is necessary, however, to keep in mind that the leverage effects of public spending in an economy incapable of reaching full employment under its own power are relatively low. Therefore, the effects of a given increment of public expenditure are short-lived, while service costs on the debt incurred will probably continue beyond the effectiveness of the expenditure. As compensatory spending continues, it is required to generate net increases in national income toward full employment or to maintain a full-employment level of income against the mounting frictions caused by debt increase. The questions of the burdensomeness of a public debt, and the nature of the limits to the size of possible debt, will be discussed in a later chapter. For the present it is well to keep in mind that an internally held public debt is not "burdenless," as some have claimed, even though its practicable limit has been shown to be far beyond that predicted by the "orthodox" view.

The long-run possibilities of attaining and remaining at a level of full employment in a "mature" economy are thus discouraging, if deficit spending by government is considered alone. Extra-fiscal measures appear to be the only ones promising long-run salvation from stagnation. For if the extensive margins of expansion are gone, the intensive margins still possess almost unlimited potentialities for expansion. And the obstacles to expansion on the intensive margin are restrictive policies of "saving the market," where pioneering is blocked because "possession is nine points of the law."

EVALUATION OF COUNTER-CYCLE SPENDING

The propensity of the private economy to create booms and depressions is a fact clearly demonstrated by past experience.

There appears to be virtually no hope that private enterprise can itself stabilize business activity and iron out these fluctuations. The alternatives are thus to utilize government resources to mitigate or correct underemployment or to accept cyclical underemployment as a long-term social cost of the profit system. The difficulty with the latter is that this social cost is too great to bear. A repetition of the experience of 1929–33 would very likely result in abandonment of the private enterprise system and democratic government, simply because the cost to the whole society is unbearable.

The ideal is, of course, full employment in the private economy made possible by full employment—*i.e.*, a national income at a reasonably full employment level being re-spent for consumption and investment to create national income at a reasonably full employment level in the next period. The fact is, unfortunately, that this does not normally occur, as is indicated by wide fluctuations in national income through the business cycle. The function of compensatory fiscal policy is thus to save the private economy from itself. The question is, How effective can fiscal policy be in accomplishing these results?

If counter-cycle spending policy is highly successful, it will induce recovery from depression. If less successful, it will halt the downward course of total spending and thus mitigate depression. In terms of welfare the second is hardly less important than the first. If unsuccessful it will actually induce further depression. The degree of success depends upon the effect upon private anticipations.

The potentialities for success are great, while the possibilities of total failure are meager if attention is seriously directed to the factors causing decline in anticipations. The chief obstacles to success are lack of clear purpose on the part of government and the threat of decline (real or self-generated) in private confidence. If the first obstacle is overcome a long step will have been taken to mitigate the second. If the intent of the policy is made clear and the logical background of the policy is understood a seriously destructive decline in anticipations is not likely. It must be kept constantly in mind that high public debt, high levels of taxation, and strong central government have come to be widely accepted as inevitable for the future. And the supposed dangers associated with high debt and

taxes and strong government have not materialized to a significant degree in recent experience. There is a great deal of evidence upon which to conclude that a policy of counter-cycle expenditure in future depression is both inevitable and far more promising of success than when tried half-heartedly and with a good deal of bungling in the nineteen-thirties.

Since there is strong evidence that doubts and opposition will be much less strong in future attempts, particularly if practice of the policy is successful, a new danger arises. Fiscal policy as a counter-cycle weapon may become too easy and too popular, blinding us to the need for particular remedies. If basic corrections are required—such as control of monopolistic practices, improvement of banking, or development of sensible international economic relations—the ease with which fiscal policy may atone for specific evils may postpone the undertaking of these necessary corrections. For successful fiscal policy may act as a drug, deadening specific pain, and thus dull our awareness of the critical long-run need for surgical treatment. Although study of extra-fiscal problems is outside the compass of this book, awareness of their existence is a prerequisite to sound fiscal policy.

RECOMMENDED READINGS

Hansen, A. H., *Fiscal Policy and Business Cycles*, N. Y., Norton, 1941, Chapter 12.

Deals with general compensatory spending and with the special case of pump-priming.

Chandler, L. V., *Introduction to Monetary Theory*, N. Y., Harper, 1940, Chapter 7.

Application of the income and expenditure approach in monetary theory to the business cycle.

Musgrave, R. A., "Fiscal Policy, Stability, and Full Employment," in *Public Finance and Full Employment*, Washington, Board of Governors of the Federal Reserve System, Postwar Economic Studies, No. 3, 1945.

Discussion of the general principles of attaining full employment, with special reference to budgetary alternatives.

Samuelson, P. A., "Fiscal Policy and Income Determination," *Quarterly Journal of Economics*, August, 1942, pp. 575–605.

A brilliant and balanced analysis with a degree of difficulty somewhat higher than that of the selections above.

CHAPTER 6

PLANNING PUBLIC EXPENDITURE PROGRAMS TO PROMOTE EMPLOYMENT

THE ROLE OF PLANNING

Previous chapters have analyzed the possible contributions of fiscal policy—on the expenditure side—to national income and welfare. We have seen that it is not enough simply to spend. Spending must be planned so as to accomplish the greatest possible multiplier and acceleration effects.

The first step in planning counter-cycle expenditure programs is to declare forthrightly the intention of government to stabilize economic activity at or near the full employment level. In the experience of the thirties, failure to make such declaration undoubtedly detracted from the effectiveness of spending. In public utterances the policy was usually characterized as a humanitarian program for the necessary relief of the needy. In the absence of clear declarations of intent to promote recovery, disagreements among the spending agencies were popularly interpreted as personal contests for power, or at best bureaucratic incompetence. Payment of relief wages above a bare subsistence level and employment of persons not yet in dire need were variously interpreted by the public as punitive expeditions against business, "natural" inefficiency of government as administrator, or the use of public funds primarily for an immense program of political patronage ("spend and elect"). The President's remark relative to the recovery of 1934–36, "we planned it that way," was not

so convincing as it might have been had most citizens been aware that any such plan had existed.

Forthright acceptance by government of a continuing responsibility for the maintenance of full employment would itself bolster anticipations tending toward decline. In addition, having committed itself to the policy indicated, the government will find the way cleared for careful and intensive preparation for implementation of that policy. Thus, if government is committed to a program of extensive public works when business begins to decline, greater impetus is given to preparatory planning of these works before the event. It cannot be overemphasized that the more fumbling with a spending program the greater the potentialities for failure.

Once committed to a counter-cycle fiscal program, decisions on an array of problems must be made. Through what channels should government funds be injected into the economy in order to obtain the most satisfactory results? Assuming that public works will be undertaken, what are the principles involved in proper selection and timing? How can the maximum of elasticity be built into the program, making it possible to meet unemployment when and where it occurs? How can the amount of spending required be determined? How can federal plans be integrated with those of state and local governments?

METHODS OF SPENDING

Three channels exist through which government funds may be injected into the income stream during periods of unemployment:

1. Home relief
2. Unemployment compensation plans
3. Work projects.

It has sometimes been argued that a fourth method of injection is that of tax reduction. In this view, tax reduction releases private funds for private expenditure, and to the extent that additional private expenditure occurs, governmental expenditures can be smaller. We have recommended tax reduction as an accompaniment of public spending in Chapter 5. While anticipations are falling, it

is highly doubtful that tax reduction can be very effective by itself in halting the decline in private spending. It is useful, however, in helping to create a climate in which spending by government may be more effective. But though compensatory taxation is an essential part of compensatory fiscal policy, it is not public spending, and we exclude it from our present analysis on those grounds.

Home Relief Home relief is distinguished by the absence of any work requirement. Persons qualify for such relief by meeting the administrative criteria of need. There are, of course, some types of need which must be met by this form of relief. In cases of old age or physical or mental incapacity for work it is evident that no work requirement can be imposed. Some able-bodied persons may reasonably be excused from performance of labor when their situations require that they remain at home. Needy mothers with dependent children are a case in point. In cases such as those mentioned the only alternatives to home relief are private charity or no relief at all.

The advantage of home relief as a channel for the injection of public funds is that, given proper definition of need, substantially all of the government funds so spent will be immediately re-spent for consumption. Some part of these funds will be used for retirement of personal debt. Since the propensity of these groups to consume is much higher than that of the general average of the population, the leakage in the first income period is practically zero. Does it follow, therefore, that the able-bodied unemployed should be added to the home relief rolls during periods of unemployment? The general answer must be in the negative in spite of the relatively high multiplier effects of such expenditure. The real disadvantages of home relief are (1) its distastefulness to recipients, and (2) the loss of production involved. It is unpleasant to regard oneself as a charity case, and in most instances it is destructive of personal morale. Thus, considerations of moral values in public welfare dictate that relief of the able-bodied unemployed should be provided by giving them something useful to do, if such projects can be found. The loss of potential production from subsidized idleness constitutes another strong argument for useful work projects. However, it must constantly be recalled that the objective is to create incomes in such

a manner as to realize the maximum multiplier and acceleration effects from public spending. Alternative channels for injection of funds are preferable to home relief only if their income-creating effects are high.

Unemployment Compensation Unemployment compensation as a channel for introducing public funds into the income stream differs from home relief on two counts. In the first place, unemployment benefits are paid from special funds accumulated by taxes on payrolls, while home relief funds must be taken from the general funds of the treasury. In the second place, benefits under unemployment compensation are not normally tailored as closely to individual need as are home relief payments.

The significance of the first has several aspects. The depressive effect upon personal morale of home relief is not present in unemployment compensation. The unemployment compensation reserve fund having been built up by special taxes ("premiums") during the period of employment, the unemployed worker rightly feels that he is receiving in benefits only what is due him.[1] The question naturally arises whether a system of relief payments based upon special tax collections fulfills the requirement that spending in depression be deficit spending. A partial answer is that unemployment taxes are automatically adjusted as employment rises and falls. For the taxes are upon payrolls, which fall during depression on account of (a) reduction in the number of employed persons and (b) the normal tendency for wages to fall during depression. Nevertheless, although the amount of payroll taxes paid rises and falls as employment rises and falls, there is good argument for eliminating these taxes entirely during periods of severe unemployment.[2] The second dif-

[1] This is not altered by the fact that such taxes are levied upon the employer rather than the employee. For it is generally conceded that the tax is not finally borne by the employer, but principally shifted to the employee in the form of lower wages and partly shifted to the buyer of the firm's product in the form of higher prices. In the latter case the employee can consider the public's contribution to the unemployment compensation system as an element of cost of production which buyers must bear in order to have the product. This matter will be considered fully in a later chapter on employment taxes.

[2] Even if payroll taxes are not eliminated during periods of high unemployment, the excess of benefit payments over current tax collections represents deficit

ference between unemployment compensation and home relief is that payments under the former are normally less nicely adjusted to immediate need than are the latter. This difference is significant in terms of the probability that funds paid out will be re-spent by the recipients and thus remain in the income circuit. Under unemployment compensation, a person is required to be unemployed for a stated period (usually two weeks) before he is eligible to collect benefits. There is no guarantee that the recipient of benefits will, during this waiting period, have so exhausted his private resources that his benefit payments will be immediately and totally spent for consumption. Further, such benefit payments are normally somewhat larger than home relief payments, which may encourage the recipient to lay aside (hoard) a part of his receipts. This is particularly true in view of the fact that unemployment compensation benefits terminate at the end of a stated period.[3] The possibility that unemployment may continue beyond the benefit period may well encourage saving of a portion of current benefit payments in highly liquid form for later expenditure. Our conclusion is therefore that the probable multiplier effects per dollar of government funds paid out are smaller in the case of unemployment compensation than in the case of home relief. The important consideration, however, is not the propensity to spend per dollar of benefits received, but rather the total income created by the expenditure. If the recipient of unemployment compensation receives benefit payments of $80 per month and has a propensity to spend of 4/5, the amount spent

spending. For the reserve accumulations in good times are invested in government debt, which means that the treasury spends these funds for current expenses or debt retirement, giving its promises to pay to the reserve funds. In depression, liquidation of these promises to pay (securities) means that the treasury raises the funds from general sources, almost certainly by borrowing.

[3] This is necessary because unemployment is not an "insurable risk." It is impossible to determine the timing, duration, or extent of unemployment, and therefore impossible to determine "premiums" which will cover benefits for the whole period of unemployment. For this reason the plan collects taxes during employment and guarantees benefit payments for a stated period of unemployment, realizing that even this limited guarantee is possible because the general funds of the treasury may be called upon in emergency. Thus it is not unemployment "insurance."

(probably for consumption) in the first period is \$64. If the recipient of home relief receives \$40 per month and has a propensity to spend (for consumption) of 1, the amount spent in the first period is \$40. Thus, comparison of propensities to re-spend is useful only on the assumption that the amounts available for re-spending are substantially equal and that the numbers of recipients are substantially equal.

On balance it appears that if government were to pay out the same total of funds to the same group of persons over the same period there would be no substantial difference in the propensity to re-spend, whether the funds were paid out as home relief or as unemployment compensation. This follows from the fact that propensity to spend is determined by the economic situation of the recipient and not the method by which his relief funds are paid to him. This being the case, the morale factor looms large in establishing a preference for unemployment compensation.

We have so far compared the two methods of injection in terms of the immediate results during a period of unemployment. We cannot ignore, however, the longer-run advantages of unemployment compensation upon the level of expenditure. The knowledge that there are benefits available in case of unemployment will certainly encourage a higher level of spending during the period of employment. The contribution of an unemployment compensation plan to the security of a worker lessens the fear-inspired hoarding which would otherwise occur when recession sets in. For if the worker sees unemployment growing around him, and if he feels that he must either support himself or fall back on public charity during the period of his probable unemployment, he will be encouraged to cut his spending immediately to a minimum in order to accumulate private reserves. This in itself is a contribution to recession, since his accumulations will probably lie idle as hoards.

The longer-run stabilizing effect upon the rate of spending of an unemployment compensation plan recommends it in preference to home relief. Its effects upon the morale of the individual further recommend it. The differences between the two plans with respect to multiplier and acceleration effects are negligible. On the other hand, there must always be home relief for a portion of the de-

pendent population who cannot feasibly be included in the unemployment compensation system.

The question still remains, however, granted the superiority of unemployment compensation over home relief for most unemployed workers, is it superior to work projects? Unemployment compensation does support idleness which might be turned to production; and if the period of unemployment extends beyond the period during which compensation payments are guaranteed by law, the gap must be filled either by the equivalent of home relief or by work projects.[4]

Work Projects Work projects are distinguished by the requirement that work be performed in return for government funds received. For purposes of our analysis it is useful to distinguish two general classes of projects: (1) work relief projects, and (2) public works.

Work relief projects are designed to provide employment to otherwise unemployed labor, the intention being to pay out the

[4] The frequent *a priori* assertion that unemployment compensation encourages idleness and malingering has not been considered for the simple reason that it is not a serious danger. Experience has not demonstrated it to be a fact. The higher income return from employment than from compensation benefits, the required waiting period before benefit payments begin, and the requirement that public employment offices certify weekly to the unavailability of an appropriate job before benefits can be paid, combine to reduce the danger of malingering to the point of elimination. There is, however, a danger in unemployment compensation that the availability of benefits may act to prevent necessary downward wage adjustments during depression. Considerable disagreement exists as to whether wages should be allowed to fall or be prevented from falling during recession and depression. The argument for the former runs in terms of the cost-price adjustments necessary in order to improve the profit and loss prospects of production in the immediate future. The tendency of costs to fall more slowly than prices undoubtedly contributes to a fall in producers' anticipations and thus to discouragement of production.

The argument for the latter points to the desirability of maintaining consumption at a high level, which cannot be accomplished if the anticipations of consumers are falling. The prospects of lower prices in the future and probable imminent unemployment combine with falling wages as contributors to falling consumer anticipations.

On balance it appears reasonable to conclude that if wages are allowed and even encouraged to fall with prices, consumption by employed laborers, measured in physical units, need not fall markedly. And if the effect of falling wages is to create less unemployment than would occur under rigid wages, the number of employed laborers purchasing for consumption is larger than it would have been.

maximum portion of the appropriation for wages. Projects in this category are roadside improvement and beautification, clearing and maintenance of public lands and forests, traffic surveys and similar factual studies, art and theatre projects, and the like. Payments from public funds are made for personal service, with the minimum necessary amount for tools and materials. Such projects, typical of the activities of the federal Works Projects Administration in the thirties, are normally planned and administered by government agencies, often with the decentralized administrative assistance of existing public and semi-public personnel.

Public works projects include the construction of capital improvements of a more permanent nature, such as dams, highways, battleships, and public buildings. During the thirties projects of this type were carried on by the federal Public Works Administration. In most cases public works construction is performed under contract by private concerns for government. Characteristic of such projects is the large proportion of public funds spent for materials and equipment.

We may make the categorical statement that work projects of a "boon-doggling" nature are undesirable on nearly all counts, if useful projects can be undertaken. The morale effects of work for wages on useless projects are no better, and probably worse, than home relief. The worker is not only intelligent enough to know that so far as social benefit is concerned he might as well sit at home and receive his "dole," but he is required to perform his useless work in full view of his fellow citizens. Useless work projects will always be more expensive than home relief; they require planning, supervision, and some equipment.

On the other hand, there are extensive work relief projects of a useful nature which may be undertaken, and they constitute a highly productive channel for the injection of public funds. Laborers on most such projects are or can be taken very largely from the relief rolls. To the extent that needy laborers are employed, it is evident that their wages will be almost completely re-spent quickly for consumption. Work relief projects of this type thus accomplish essentially the same multiplier effects as does home relief, with the added

advantages of more favorable effects upon personal morale and the accomplishment of useful services to the community.

Public works construction projects will inevitably be used in a serious recession, both because they have popular appeal and because the alternative methods previously discussed will be inadequate at the "need" level to provide outlets for spending in sufficient volume to accomplish the desired results. Two peculiar aspects of public works require our particular attention: (1) a large part of the expenditure on public works is made for materials, and (2) of the labor employed, only a relatively small proportion can feasibly be taken from the relief rolls.

By March 1, 1939, the Public Works Administration, whose projects were mainly of the permanent construction type, had spent about 1¼ billion dollars for labor and about 2¾ billion dollars for materials.[5] The ratio was thus roughly two dollars for materials to one dollar for labor. And by no means all of the labor employed could be classed as relief labor. Since construction projects require a high proportion of skilled labor, and since unemployed labor of the requisite skills may not be available in the required numbers in the locality of the projects, employment of *only* otherwise unemployed workers is hardly possible. Furthermore, when such projects are undertaken by private contractors who bid for the contracts, it is highly questionable policy to require them to hire a large proportion of their men from relief rolls. The percentage of relief persons employed on PWA projects declined markedly between 1935 and 1938. For the week ending December 28, 1935, 41.5% of persons employed on non-federal projects were from relief lists, while for the week ending June 25, 1938, 11.9% were relief persons.[6] The trend was constantly downward between these periods. This change was due largely to governmental relaxation of insistence upon hiring

[5] Public Works Administration, *America Builds, The Record of PWA*, Washington, 1939, pp. 19, 26.

[6] WPA, *Report on Progress of the WPA Program*, June 30, 1938, pp. 124–5, quoted in J. Kerwin Williams, *Grants-in-aid Under the Public Works Administration*, New York, Columbia, 1939, p. 183 n. "Non-federal projects" were projects of state and local governments, with extensive federal financial assistance. They constituted the bulk of PWA public works projects.

relief persons, which was shown by experience to have been awkward in view of the hardship upon contractors, who were expected to bid on projects without satisfactory foreknowledge of the make-up of their labor force. A part of the decline in use of relief persons may well have been due to the decline in unemployment.

What is the significance of these two characteristics (proportionately large expenditures on materials and proportionately small employment of relief persons) to the multiplier and acceleration effects of public works expenditure? It is almost certain that a smaller proportion of the public outlay is immediately re-spent than would be the case in, for instance, home relief. Construction companies receive payments which are distributed to the factors of production, some of which are not immediately re-spent for consumption or investment. Some leakage thus occurs. On the other hand, there is evidence that public funds spent for construction are strategically spent, in the sense that the industries receiving payment are so situated in the economy as to be unusually favorably affected.

Professor Hansen favors public works expenditure over relief expenditure as a method of injecting public funds on two counts.[7] (1) The leverage effects of relief expenditures are frequently overestimated. Although it is true that in the first round of re-spending, relief expenditures offer considerably less probability of leakage, in subsequent rounds there is no reason to believe that leakages remain comparatively small. (2) The induced consequences (after the first round) of public works expenditure are likely to be greater than those of relief expenditure. For relief recipients will re-spend on consumption, and their added expenditures will be small as compared to the large existing volume of consumption expenditures. "The additional purchases are spread very thinly over the vast consumption industries, thus giving very little stimulus to increased output, and are, therefore, likely to induce hardly any increase in employment." On the other hand, the construction industry is typical of those heavy industries which are peculiarly depressed, and heavy spending in this field would have a very significant effect upon employment and upon the purchase of equipment. An expenditure of 4 billion dollars on construction would constitute an amount equal

[7] *Fiscal Policy and Business Cycles*, pp. 81–3.

to almost one-third the total annual expenditure on all fixed capital investment in the prosperous period 1925–29.

Hansen's argument is persuasive. Students of the problem typically point out that in the matter of first-round re-spending, relief outlays experience smaller leakages, but that in successive rounds the relative leakages are undeterminable.[8] Those who criticize Hansen's enthusiasm for public works expenditure appear to object only to his conclusion that the leverage effects of public works expenditures are *greater* than those of relief expenditure.[9] We may conclude that in the present stage of our knowledge the income-generating effects of public works expenditures are at least not markedly inferior to those of other types. Since public works at going wage rates have the most favorable influences upon the morale of the worker, and create structures socially useful, they are strongly recommended as a channel through which public funds are put into the income stream.

One assumption has been implicit in our discussion of public works, and requires statement. The projects selected should be of a type which does not threaten long-run competition with private investment. Highway construction is a good example of non-competitive public investment; construction of electric utility systems or railroads would have a seriously threatening incidence upon existing private investment in those fields, and thus seriously weaken private desires to replace depreciating equipment or to expand productive capacity.[10] However, to quote Professor Hansen,[11] "In our own coun-

[8] For instance, H. H. Villard states: ". . . public works may have different secondary effects upon the economic system than other forms of public expenditure. But at the present time it is difficult to distinguish such differences even in theory and almost impossible to distinguish them in practice." *Deficit Spending and the National Income*, New York, Farrar, 1941, p. 295.

[9] See, for instance, P. A. Samuelson: "I conclude, therefore, that direct consumption expenditure is not only in line with the needs of the times (the war period excluded), but also has no less favorable effects than public works expenditures." "Fiscal Policy and Income Determination," *Quarterly Journal of Economics*, August, 1942, p. 601.

[10] By 1937, for instance, the failure of public utilities investment to recover as rapidly as did investment in other fields (excepting housing and railroads, which faced special problems) can probably be explained largely in terms of the discouragement to private investment created by the rapid growth of public power plans and projects earlier in the decade. The regulatory attack

try, as in most advanced countries, there is a wide field for useful and productive public expenditure without encroaching upon the accepted traditional sphere of private enterprise. These include public-investment aspects of urban redevelopment, transportation facilities, river-valley development, flood control, soil conservation, reforestration, rural electrification, slum clearance and low-cost housing, international investment projects such as those now (1941) being made by the Export-Import in Latin America, and finally a social-security and public-welfare program including equal educational opportunities, child welfare, public health, nutrition, and an extension of our system of social insurance. Public resource development projects not only raise the productivity and standard of living of the areas in which they are made, but also open up private investment outlets. Moreover, social-welfare expenditures act like an irrigation system, distributing purchasing power widely over the whole country, thereby raising the level of consumption expenditures and business activity."

THE SELECTION AND TIMING OF PUBLIC WORKS [12]

The essence of public works planning is the orderly arrangement of projects in terms of their relative importance to communities, their proper sequence relative to each other, their strategic importance with respect to the geographical incidence of unemployment, and their potentialities for income generation. Thus, three considerations are important: the usefulness of the structure or activity in itself, the ability to provide needed relief, and the ability to expand national income. Of these the last is paramount, although the great advantage of public works lies in their potentialities for accomplishment of the first and second.

The need for public school buildings will in most instances be

on utility holding companies constituted another—obviously necessary—discouragement of private investment.

[11] Reprinted from Appendix A, p. 291, of *State and Local Finance in the National Economy*, by Alvin H. Hansen and Harvey S. Perloff by permission of W. W. Norton & Company, Inc. Copyright, 1944, by the publishers.

[12] This section leans heavily upon the standard study in the field: J. M. Clark, *Economics of Planning Public Works*, Washington, National Planning Board, 1935.

more urgent than for baseball parks. Improvement of the navigability of rivers may well deserve priority over the construction of docks at the outlets of those rivers. Irrigation projects in California can do little to provide direct relief to peculiarly depressed textile centers on the eastern seaboard. Widespread low-cost housing programs will not only employ labor and building materials directly, but will create new demand for household furnishings. Rural electrification not only purchases labor and materials directly, but induces private demand for electrical appliances of many types. Highway construction purchases labor and materials, but also induces demand for petroleum products, automobiles and parts, and repair services.

Since the considerations facing those responsible for planning public works are so many and so varied, it is inevitable that compromises among these considerations will be incorporated into the plan. It cannot be overemphasized, however, that public expenditure policy to combat the cycle will consistently attach first importance to the income-inducing possibilities of various projects.

A declaration of determination to undertake public works on a large scale in depression will inspire much greater confidence and cooperation if it is followed by genuine attempts to list in order of importance the various projects to be undertaken. Frantic last minute scurrying about to find something to spend public money for will inevitably produce prodigious waste and poor results. Such lack of planning is conducive to Congressional abandonment of the national interest in favor of pork-barrel activities; public works funds then become subject to feverish raiding by representatives of electoral districts, whose standing as legislative promoters of the general welfare is measured by the number of dollars allocated to projects in the home district.

When individual public works projects are integrated into a larger plan for the development of community, region, or nation, individual projects can be both judged and planned more intelligently.[13] The assignment of priorities becomes more than spur-of-

[13] The experience with city planning in most larger cities has justified its cost many times over. City planning, however, involves more than the planning of public works. It covers building codes and restrictions, control of the issuance of permits to carry on particular activities, and in general the public and private aspects of long-term city development.

the-moment judgment, perhaps under pressure from special interests. The longer the view taken, the larger the general objectives into which individual projects may be fitted. And projects with high priority may be planned with a view to their later coordinate use with projects currently low on the priority list.[14]

One of the larger practical obstacles to programming public works for counter-cycle effects arises out of the difficulty of abstaining from such expenditures during prosperity. A really useful public project—a school, a sewage disposal plant, a highway—becomes particularly attractive during the phase of the business cycle when public revenues are adequate to meet the cost. The public wants the improvement now and can afford it now. Furthermore, in a period of prosperity the public is unlikely to worry about depression, and consequently places a low valuation upon the counter-cycle advantages of postponement. Finally, there is disinclination to dampen the exhilarations of prosperity by postponement of public works.

To the extent that useful projects are not postponed for execution in depression, the depression public works program must carry through projects of secondary importance. The advantages of postponement are of course all the potential income-inducing powers of the program. In addition, postponement means that the improvement is purchased at relatively lower prices, the saving in cost probably being greater than any additional interest cost incurred through the necessity of borrowing in depression for the whole project.

Furthermore, we may not ignore the danger that extensive public works in boom times will exert inflationary pressures by competing with private concerns for scarce materials and factors of production. The inflation of costs and the appearance of production bottlenecks may contribute to a fall of anticipations which terminates prosperity and initiates recession.

[14] The student will be surprised to find to what extent research along planning lines has already progressed. Perusal of the various publications of the National Resources Committee and its predecessors is highly recommended. Economic analyses of local and regional problems are extensive. Lists of projects, with description, are available. Surveys of the studies of state and local planning boards are published. The reader whose first reaction to the requirements of regional and national planning is one of hopeless defeatism in view of the magnitude of the task will find from these reports that it is not only possible but that much of the spadework has already been done.

There are, of course, public projects which cannot be postponed until the arrival of depression. Armament expenditures hardly lend themselves to counter-cycle variation. Most projects, however, can be scheduled for such use, provided the normal preference for a rising standard of public living during prosperity is curbed in favor of using extraordinary projects for purposes of stabilization. The tool of grants-in-aid is a useful one in overcoming this normal preference. A locality which wishes a new bridge can usually be encouraged to postpone its construction until a later date if such postponement means that half the cost is borne by the federal government. The use of federal grants was extremely successful in inducing local governments to undertake extensive local construction under the PWA program. If federal aid for highway construction were withdrawn during prosperity and made available in large volume in depression it is to be expected that state highway appropriations would conform to a somewhat similar cyclical trend.

Proper timing of public works involves two types of problems: putting the public works program into operation at the proper time, and terminating it at the proper time. If inauguration of the program is delayed too long, the deficiencies of private spending to be overcome by public spending are unnecessarily large. We have noted that the effects of recession are cumulative—that recession feeds upon itself. If, therefore, government spending can halt the downward spiral of anticipations at an early stage, the obstacles to recovery are less vigorous and the amount of necessary spending is smaller. The indexes most useful in indicating the imminence of recession are those of new capital investment and employment in the heavy goods industries. A decline in these indexes, unless explainable by specific causes unrelated to the business cycle, should be the signal for inauguration of the public works program. "Too little and too late" will prove costly.

Termination of a public works program at the proper time involves the selection of projects which can be completed within the period of underemployment. Short projects are indicated for short-period recessions, while projects involving a long construction period will be scheduled for long depression. Highways and public buildings lend themselves admirably to short cycles, while area develop-

ments such as TVA require long periods during which public funds should be spent. Partial construction on large projects is unwise during the short cycle because of the adverse effect upon public enthusiasm of abandonment of a partially finished project and the administrative difficulty in determining at what point work should be terminated.

How is it possible to determine when private industry can safely be trusted to carry on toward full employment? How do we know when public works should be terminated? The problem is likely to be less difficult than some students have thought it to be. When the capital goods industries show recovery in terms of private orders, when the excess capacity to produce goods declines to the point of promising scarcities in the near future, when the price indexes begin to show rising tendencies, and when employment offices register a notable strengthening of the private demand for labor, it is time for government projects to taper off. As projects are completed, new projects are not undertaken. It is important, however, that government spending be tapered off and not terminated abruptly so as to cause shock to the private economy.

Selection and timing of public works require careful selection of projects and their integration into a long-range plan. The plan will, however, be constantly subject to change as new projects force themselves to the top of the list. It can never be a blueprint which can be placed on the shelf for future use if and when depression appears. It must remain adaptable to varying conditions, and it must be subject to major revision from time to time. Depressions of varying intensity, varying degrees of localization, and varying in their external causes will need to be attacked with public works programs tailored to particular needs. And it contributes to realistic thinking to keep constantly in mind that a severe depression of long duration will require considerable on-the-spot compromise between immediate necessity and the most logical predetermined plan. Even so, a plan is infinitely superior to no plan.

HOW MUCH SHALL WE SPEND?

If accurate and up-to-date (say weekly) statistics were available, and if the leverage effects of particular expenditures were

subject to accurate forecast, the determination of the amount of public funds to be injected at any time to create full employment could be reduced to a matter of simple formula. Government would simply inject the proper quantities of funds into the proper channels to off-set the deficiencies in private consumption and investment. But in a sprawling economy such as ours, with intricate interrelations, statistics lack both accuracy and currency. And the economy being subject to the reactions of human beings, whose reactions cannot be reduced to simple patterns of cause and effect, forecasting will always be an inexact science. We must therefore abandon hope that the administration of fiscal policy can ever become a simple matter of the slide rule.

This is not to say that we should ignore the statistics available, or that the currently available statistics should not be improved both in accuracy and in currency whenever possible.[15] There are already rough rules which can be followed in the absence of more refined techniques. For instance, national income is now computed by the Department of Commerce on a monthly basis. The velocity of circulating money is subject to computation. By comparing the estimated national income at a full employment level with the current level of national income, an estimate of the current deficiency of national income can be obtained. Dividing this deficiency by the current average velocity of circulating money, a rough figure of the necessary injection of government funds can be calculated.[16] This method of using existing facts to guide policy is only one possible approach. Another would be to use the existing indexes of industrial

[15] A hopeful aspect of the problem is the rather startling demonstrations in economic literature that necessity really is the mother of invention. Remarkable advances of both *a priori* and statistical analysis in the face of practical problems crying for early solution are characteristic in the history of economic thought. The very advance since 1930 in knowledge of business cycles and fiscal policy, with which we are here concerned, is a case in point. There is little doubt that the requirements of policy, once determined upon, would spur the advance toward more useful statistical information.

[16] J. W. Angell has made these computations to show that, with admitted inaccuracies, the 1929 level of income could have been maintained through 1932 by expenditure of $4.5 billion of government funds per year. This is, of course, calculated in retrospect, and thus cannot tell what would have happened if, for instance, government had begun a spending program in December, 1929.

production, sales of consumption goods, and employment, to indicate the deficiencies to be made up. But even reasonably accurate estimates of the deficiencies to be countered do not treat the more difficult problem of determining the probable leverage effects of a government dollar spent.

If policy is planned intelligently, avoiding as many as possible of the negating influences enumerated and discussed in Chapter 5, rules of thumb are not essential to its success. For then the job is to get the spending program rolling, being constantly aware of the fact that too little spending is far more dangerous than too much.

INCORPORATION OF CYCLICAL PUBLIC WORKS PLANS INTO BUDGETARY PROCEDURES

Many of the adherents of public works planning for counter-cycle purposes believe that such a program requires a separate budget for such expenditures. There appear to be two reasons for this belief. The first is that the period of depression and deficit spending does not coincide with the fiscal year calendar. This being the case, the program must normally be budgeted over a longer—or at least a different—period than is usually covered by the annual budget. So far as continuing the appropriations until the emergency is past is concerned, if Congress has declared its intent to promote stabilization at a high level, continued appropriations can be expected. Actually, this element of the budget requires much more frequent review by the appropriating body than do most governmental functions, since its current success or failure—and therefore its financial requirements—must be constantly measured. It is thus difficult to see why a separate budget is desirable, in view of the elasticity provided by deficiency appropriations.

The second reason for recommending a separate public works budget appears to be the traditional fear of unbalanced budgets. However, as concluded in Chapter 2, even though the causes of budgetary unbalance are extraordinary, the division into a balanced ordinary budget and an unbalanced extraordinary budget performs no magic with respect to the total extent of unbalance. A govern-

ment which is mature enough in its thinking to undertake seriously counter-cycle fiscal policy should be mature enough to undertake it without sugar-coating. The long-run advantages of budgetary unity and inclusiveness would considerably outweigh the presumed advantage of separate budgeting of public works. This in no way denies that counter-cycle appropriations demand consideration from a special point of view and with an understanding of the reasons for their necessity. But if this were cause for a separate budget, it would be applicable to many other functions on identical grounds.

Adequate preparation for depression public works plans as a continuing governmental policy would require creation of a special commission to conduct planning research and to make recommendations to the President. This commission would necessarily require the services of two types of specialists: engineers to exercise technical judgment of projects in their relation to the whole public works plan and to work out myriads of engineering details in connection with them, and economists, whose responsibility would be that of measuring counter-cyclical needs in terms of the current state of employment, determining ways and means of maximizing leverage effects, and general research in the whole field of fiscal policy in relation to the level of employment and productivity. It goes without saying that, business confidence being so important a factor in the success of the program, the work of the commission must be closely tied to the general business field. It is important that the views of intelligent business be constantly regarded as a necessary datum in analyses by the commission; that the voice of business be used so far as possible to steer fiscal policy in the right direction, rather than to allow business to become consistently obstructionist.

It is believed that the detailed structure, powers, and responsibilities of this commission lie outside the scope of this book. Its position should be that of a research organization, advising the President on fiscal policy (including, of course, compensatory taxation as well as compensatory spending). The President's budget recommendations would then include the recommendations of this commission. The position of the budget bureau would in no significant way be changed. Nor would the appropriation function of the legislative

branch be changed.[17] In hearings before appropriation committees the anti-cyclical policy commission would doubtless be called upon frequently to justify its recommendations. On the whole, therefore, adoption of a permanent policy of using fiscal instruments to influence national income would involve no significant change in governmental organization or in budgetary procedure.

INTEGRATION OF FEDERAL, STATE, AND LOCAL FISCAL POLICY

The federal government cannot legally exercise direct control over the fiscal policies of state and local governments. Yet, if state and local governments were to follow their natural inclinations relative to public works, their policies would be largely in opposition to those contemplated in federal public works planning. The tax systems of state and local governments are both more rigid (less elastic) than those of the federal government, and more burdensome upon the lower income groups. Property taxes, fees and licenses, sales taxes, and many business taxes, do not adjust themselves with any degree of nicety to changes in net income, which is the only real measure of ability to pay. These same revenue measures, at least as applied in practice, tend to impose greater real sacrifice on those in the lower income classes. Furthermore, state and local governments—particularly the latter—operate under far more rigid limitations upon borrowing than does the federal government. Formal debt limits are more rigid, popular objection to local borrowing is more firmly intrenched, and capital markets to which they may turn are more limited.

At the same time, the administration of counter-cycle policy requires extensive state and local participation. The home relief problem is—administratively at least—essentially a local problem. A large proportion of scheduled public works projects will be local in nature.

[17] Although such cyclical use of fiscal policy as is contemplated here would demonstrate again the basic absurdity of the "legislative budget" ceiling provided for in the Reorganization Act of 1946. The "strait-jacket" principle of budgeting, unless honored in the breach rather than the observance, is an ill-fitting garment to be worn by government one of whose major functions is to promote the general welfare in a dynamic and unstable economy.

From all points of view, it is reasonable that there should be state and/or local financial participation.

The natural inclination of state and local governments is to expand public works in prosperity and contract them in depression. If public works or relief projects are carried on in depression there is great pressure to finance these emergency activities out of current tax revenues. Unless state and local fiscal policy can be integrated with federal counter-cycle policy, the two are at loggerheads. In depression what is required is (1) increase of expenditure, and (2) decrease in taxes, particularly those which tend to encroach upon expenditures for consumption. Thus if state and local governments were to follow their natural inclinations, their policies would naturally accentuate the cycle. At the very least they would partially vitiate the effect of federal counter-cycle policy.

Even if it were desirable on general grounds, which it probably is not, to make state and local governments administrative subsidiaries of the federal government, such a revolutionary change in governmental structure is not feasible. The alternative is to induce cooperation of local governments with the federal government in matters of fiscal policy. Two approaches to the problem hold some promise: (1) selling state and local governments on the desirability of counter-cycle policy, and (2) widespread use of federal subsidies in the form of grants-in-aid.

Concerning the first, convincing analysis of the cycle and the potentialities for control may have some effect upon public thinking. Public works planning at the state and local levels should help to sell counter-cycle policy by demonstrating the possibilities for long-run improvements. This has been done extensively through the activities of state and local planning boards fostered during the thirties by the federal government. Such plans should be given wide publicity. The desired results are adoption of counter-cycle fiscal thinking, with consequent revision of tax systems so as to reduce regressiveness, acceptance of the principle of *deficit* spending in depression, and relaxation of debt controls as they relate to emergency borrowing.

State and local governments can hardly be blamed for showing

less enthusiasm for counter-cycle policy than have federal officials. Control of the typically national phenomenon of depression logically points to responsibility for its mitigation or cure by the federal government, whose cognizance is co-extensive with the national economy. Further, our analysis has certainly implied that the income-inducing effects of local expenditure are by no means confined to the local area. Public works require expenditure for materials and for specialized labor which immediately produces income to persons outside the locality. And even those local citizens employed on local projects spend their income for goods which carry funds outside the community. Local governments thus do not willingly incur debt in order to spend funds which are re-spent only in small amounts within the locality. This points to the necessity for an integrated national policy, demonstrating that the income of a community gains not only from its own expenditures, but from those of other communities.

The use of grants-in-aid by the federal government can produce much more immediate results. Federal taxes are progressive in overall effect and therefore less burdensome. Federal borrowing can be done more cheaply. Thus, the use of federal financial resources is highly recommended as an assistance to state and local governments. But more important still, the offer of grants goes far to overcome state and local resistance to spending for public works in depression. State and local governments are thus encouraged to borrow to take advantage of public works at half price. To the extent that this is done, their natural inclinations may be relied upon to use surplus tax revenues in prosperity to retire depression-incurred debt.

PUBLIC EXPENDITURES: SUMMARY

In Chapter 3 we noted the rise of governmental expenditures at all levels. The largest single item accounting for this rise has been frequent and expensive wars. War expenditures rise to astronomical heights during the actual fighting, but are largely responsible for new higher levels of post-war expenditure on account of (1) interest on the war-incurred debt, (2) bonuses, pensions, grants, and care of the war-disabled and their dependents, and (3) retention of war-created non-military activities which become more or less permanent parts of the governmental establishment.

Nearly all war-created increases in expenditures occur at the federal level, although without significant changes in functions at other governmental levels the post-war inheritance of high prices will increase the dollar level of expenditures all around.

Second in importance has been the marked expansion at all governmental levels since 1930 of welfare activities. Constantly expanding expenditures for highways and education have been notable at the state and local levels, and are indicative of the observed trend toward more and better governmental services generally.

However, Chapter 3 analyzed trends and causes of expenditure increase only from the traditional point of view of the value of the services *per se* to citizens. By analysis of material welfare of a society in terms of national income (Chapter 4) the very considerable social cost of idle productive resources was demonstrated. It was further seen that national income fluctuates from period to period as more or less of the income of one period is spent to become income in the next. The failure to re-spend income was seen to result partly from the size of income, but mainly from the recurrent tendency for anticipations to fall. In prosperity the tendency to dishoard and to introduce "new money" makes possible the expenditure in one period of more than the income of the preceding period.

Since the business cycle is a cycle of spending (for consumption and investment), it is evident that government spending is not only an item of significance in the cycle, but holds real possibilities for regulation of the cycle. Government funds may not only help to fill in the troughs of deficiencies in national income, but under proper circumstances may generate increases in private spending which constitute recovery and prosperity. Thus, the measure of usefulness of public expenditure extends far beyond the usefulness of the immediate service. The expenditure buys public services and public projects, but at the same time it buys income for the nation. By and large, the income purchased is of far greater significance than the project or service itself.

The techniques employed in administering anti-cyclical public expenditures have a great deal to do with the success of the policy. For even in severe depression public expenditures will be small in relation to private expenditures. If, therefore, public expenditure

techniques contribute to a decline in private anticipations, the effect may be further net decline in total expenditures. Policy requirements in this respect were analyzed in Chapters 5 and 6.

Though the present state of knowledge is imperfect in the sense that it contains areas of *a priori* conclusions as yet unproved by experience, analysis and experience justify the following propositions:

1. Government expenditures can and do affect the level of national income significantly.
2. Cyclical waves of costly underemployment are characteristic of the private economy and therefore virtually inevitable in the absence of external manipulation.
3. The social costs of such unemployment are so great as to require the undertaking of any measures which give even reasonable promise of mitigation and cure.
4. A government with a mandate from its people to "promote the general welfare" cannot ignore the greatest single cause of recurrent decline in economic welfare.
5. Although sheer weight of public expenditure in sufficient volume will accomplish substitution of public for private income, and therefore probably render depression less severe, generation of recovery requires the choice of proper techniques in order to take full advantage of multiplier and acceleration effects.
6. Governmental determination to utilize its vast economic power for mitigation and cure of depression, implemented by careful research into economic realities and careful programming of useful works should go a long way toward obviating any serious counteraction resulting from disintegration of private "confidence."
7. In the absence of declared governmental intentions and prepared governmental plans, it is inevitable that government expenditures will greatly increase willy-nilly for humanitarian relief purposes. These and possibly additional funds could, if properly timed and placed into the proper channels under the proper conditions, accomplish results both in generated income and useful projects far beyond their economic and social costs.

RECOMMENDED READINGS

Clark, J. M., *Economics of Planning Public Works,* Washington, National Planning Board, 1935.

The standard work on the subject. Can be very profitably read in its entirety. Especially recommended, if time does not permit reading the whole, are Chapters 1, 2, 3, 4, 6, 9, 10, 16.

Hansen, A. H., *Economic Policy and Full Employment,* N. Y., McGraw-Hill, 1947, Part Three.

This is an enlightening and current description of governmental programs to promote full employment in England, Canada, Australia, Sweden, and the United States.

CHAPTER 7

PUBLIC DEBT: ITS NATURE AND ITS MANAGEMENT

Government debt arises out of borrowing by the treasury from banks, business organizations, and individuals. The debt is in the form of promises by the treasury to pay to the holders of these promises a principal sum and in most instances interest on that principal. Borrowing by the treasury takes place when current revenue receipts (see Chapter 2) are inadequate to maintain a treasury cash balance of sufficient size to meet current cost payments.[1] In this case borrowing is resorted to in order to provide funds for financing a current budget deficit. Such current deficit borrowing results in a net addition to public debt. In recent fiscal years, however, a major part of federal government borrowing has been undertaken to provide funds with which to replace maturing obligations in the already existing debt. For when a treasury obligation matures (its principal being due) the treasury must either pay the principal sum out of current budget surplus (excess of revenue receipts over cost payments) or borrow new funds to retire old debt. The federal government ran consistent annual deficits between 1930 and 1946, and thus maturing obligations in the public debt had to be retired with funds procured by new borrowing. Such debt operations do not, obviously, result in net increase in public debt outstanding.

[1] Interest on the public debt is, of course, a cost payment.

GROSS DEBT AND NET DEBT

The treasury's *gross debt* includes the principal sum of all treasury debt obligations outstanding. Debt obligations are those represented by "securities"; *i.e.*, actual contractual promises to pay. At any moment the treasury may owe accrued but unpaid salaries of government employees; if government workers are paid every two weeks, at any time between pay days salaries will have accrued but will be unpaid. Such accrued current expenses are not a part of gross debt. Because of the mechanics of payment there may be outstanding at any moment considerable amounts of claims against the government for materials purchased, or damages awarded. These are also accrued current expenses and do not enter into the total of gross debt, although debt may necessarily be later incurred to meet these expenses.

Special mention should be made of proper treatment of interest in connection with gross debt. At any moment of time interest will have accrued on the debt, whether or not it is immediately payable. In neither case is it properly a part of gross debt. However, in reporting gross debt the treasury does include interest on some issues. Two examples of this are statistically important. Series E savings bonds accumulate interest during their life and add this interest (compounded) to the principal. A Series E bond purchased for $18.75 matures in ten years, at which time government pays the holder $25.00. The difference between $18.75 and $25.00 is compound interest at 2.9 per cent for ten years. During the ten-year life of the bond, however, it may be redeemed for $18.75 plus accrued interest (modified by a redemption schedule designed to encourage holding the bond until maturity). At any time, therefore, before the end of ten years the Treasury stands ready to pay the principal plus a stated amount of interest, and in reporting the gross amount of such bonds outstanding at any given moment the Treasury states their current amount including accumulated interest. A second example is that of Treasury Bills, 90-day obligations sold on a "discount" basis. The purchaser pays the Treasury an amount which is less than the matured value of the Bill, this discount representing interest for the period until maturity. In reporting the gross amount

of such securities outstanding at any moment the final or matured value is reported; thus gross debt in this case also includes interest. In cases of this sort it is important to recognize that the reported figures of gross debt depart somewhat from our definition, though the degree of technical error in the reported statistics is not large.

The determination of *net debt* involves subtraction from gross debt of the amounts of funds on hand or dedicated to debt retirement. Amounts in the sinking fund are assets set aside for the purpose of retirement of debt, and are therefore deductible from gross debt. By this deduction we come closer to a useful figure of the actual debt position of the treasury.

A second deduction from gross debt is the amount of the treasury balance—either in cash or in bank deposits. The treasury balance represents liquid assets which may or may not be used for debt retirement. If borrowing is undertaken to build up the cash balance, the *net* debtor position of the treasury is actually unchanged, since the addition to gross debt is equal to the increase in treasury liquid assets. Operation of the treasury at a surplus will result in an increase in the treasury balance until it is used for debt retirement. The treasury balance can thus increase from two (and only two) sources: new borrowing and a current excess of receipts over payments. In either case the balance should be deducted from gross debt outstanding to give a correct picture of the actual (net) debt position of the treasury.

Net debt is thus the gross debt minus the sum of the sinking fund and the treasury balance. The net debtor position of the United States Treasury as of June 30, 1946, is calculated as follows (in millions): [2]

Gross Debt		$269,422
General Fund Balance	$14,238	
Sinking Fund Balance	5,525	19,763
Net Debt		$249,659

The *net* debtor position of the treasury is of significance for certain purposes. It obviously possesses elements of reality not possessed by figures of gross debt. For instance, retirement of debt by permanent

[2] From *Annual Report of the Secretary of the Treasury,* June 30, 1946, p. 504.

reduction in the treasury balance, such as took place during 1946, showed marked decrease in gross debt even though the treasury was currently operating at a deficit. In such a case net debt, remaining virtually unchanged, is a far better measure of debt condition than is gross debt. Nevertheless, net debt may be misleading unless correctly interpreted. An increase in gross debt may create no immediate increase in net debt, since the proceeds of borrowing increase the treasury balance. Over a longer period the use of the treasury balance to meet current expenses will increase net debt to correspond to the increase in gross debt.

Gross public debt receipts and expenditures for the fiscal year 1946 were as follows (in millions): [3]

Public Debt Receipts	$150,988
Public Debt Expenditures	140,248
Excess of Receipts	$ 10,740

The excess of public debt receipts over expenditures represents the increase during the year in the nation's gross debt. Public debt receipts represent the proceeds of sales of government securities during the year. Public debt expenditures represent payments for retirement of securities during the year. It is evident from the figures above that the major part of the proceeds of treasury security sales was used to pay off the holders of matured securities. The difference between public debt receipts and expenditures represents the addition during the year to gross debt, made necessary by treasury deficit or an increase in the treasury balance.

The sources of gross debt increase during fiscal 1946 were (in millions): [4]

Budget Deficit	$21,200
Increase in Treasury Balance	10,460
Increase in Gross Debt	$10,740

The figure of increase in gross debt is seen to be identical with the figure of excess of public debt receipts over public debt expenditures presented above.

[3] *Ibid.*, pp. 465, 467.
[4] *Ibid.*, p. 504.

Summarizing the factors responsible for change in *gross debt,* we find them to be:

1. Budget surplus or deficit. Budget deficit inevitably increases gross debt unless the deficit is met by a reduction in the cash balance; the excess of cost payments over revenue receipts usually requires resort to new borrowing. Budget surplus may be used to reduce debt; on the other hand it may increase the cash balance without reducing gross debt.
2. Increase or decrease in the treasury balance. An increase in the balance will be accompanied by an increase in gross debt unless the increase in balance is provided by a budget surplus. A decrease in the cash balance will reduce gross debt to the extent that funds are used for debt retirement and not to cover a budget deficit.
3. Decrease in the sinking fund balance. Since the sinking fund is dedicated to debt retirement a reduction in the sinking fund balance, *without offsetting new borrowing for current expenses or to increase the cash balance*, represents reduction in gross debt.

It follows from our previous discussion that change in *net debt* can occur only on account of budget surplus or deficit. Increase or decrease in gross debt resulting in increase or decrease of the treasury balance leaves net debt unchanged. Decrease in gross debt by expenditure from the sinking fund likewise leaves net debt unchanged.

THE TREND OF GOVERNMENT DEBT

Federal The trend of the federal government debt is shown in Table 12. Gross debt figures show essentially the behavior over time that one has learned to expect from observation of the trend of federal expenditures. It is noteworthy that figures of gross debt are in terms of current dollars and therefore are not adjusted to changes in the price level. The effect of war upon the gross debt is evident: a 38-fold increase between 1860 and 1870; a 21-fold increase between 1910 and 1920; a 6-fold increase between 1940 and 1946. Marked price increase is inherent in all three periods of war increase; nevertheless the war debt, being fixed in terms of dollars, continues at the wartime level even though prices later fall. Percent-

age increases of course tell only a part of the story. The 6-fold increase during the period 1940–46 represents a dollar increase in gross debt ninety-five times as great as does the 38-fold increase during the period 1860–70 and ten times as great as the 21-fold increase between 1910 and 1920.

TABLE 12 U. S. Federal Debt, Selected Years, 1860–1946 [5]

END OF YEAR	GROSS DEBT (*millions of dollars*)	PER CAPITA GROSS DEBT (*dollars*)	GROSS DEBT AS % OF GROSS NATIONAL PRODUCT
1860	65	2.06	1.8
1870	2,436	63.19	36.2
1880	2,091	41.69	28.3
1890	1,122	17.92	9.3
1900	1,263	16.56	6.9
1910	1,147	12.69	3.7
1920	24,299	228.33	28.0
1921	23,977	221.10	33.9
1922	22,963	208.97	31.6
1923	22,349	200.10	26.5
1924	21,251	186.86	25.4
1925	20,516	177.82	22.7
1926	19,643	167.70	20.6
1927	18,512	156.05	19.7
1928	17,604	146.69	18.4
1929	16,931	139.40	17.0
1930	16,185	131.49	18.4
1931	16,801	135.37	23.4
1932	19,487	155.93	35.2
1933	22,539	179.21	41.1
1934	27,053	213.65	42.4
1935	28,701	225.07	40.7
1936	33,779	263.01	41.2
1937	36,425	281.80	41.5
1938	37,165	285.41	46.1
1939	40,440	308.29	45.6
1940	42,968	325.63	44.3
1941	48,961	367.54	40.6
1942	72,422	537.35	47.8
1943	136,696	1,001.55	72.8
1944	201,003	1,455.52	101.2
1945	258,682	1,853.01	131.1
1946	269,422	1,910.97	138.8

[5] Gross debt and per capita gross debt taken from *Annual Report of the Secretary of the Treasury, 1946*, pp. 455, 456.

Gross national product figures taken from the following sources: 1860–

The period 1870–1910 shows reduction of debt from the Civil War level and relative stability throughout the period. The decade following 1920 demonstrates consistent debt reduction at a rate averaging about $1 billion per year. This is due very largely to a relatively high level of economic activity and the high productivity during the post-war period of the tax system introduced during the war. The budget surpluses of the twenties cannot be said to have resulted from conscious determination to tax heavily for purposes of debt reduction; rather the surpluses accumulated in spite of persistent tax-rate reduction. Preliminary attention is invited, in terms of the experience of the twenties, to the extreme importance of a high level of business activity and national income, both in facilitating debt retirement and in moderating the burden of high debt.[6] The study in Chapter 3 of the new crop of governmental functions introduced during the depression decade of the thirties explains the new debt increase which began in 1931 and continued until 1940. Debt increase greatly accelerated during World War II, for obvious reasons.

Per capita gross debt shows essentially the same increase as does total gross debt, though the over-all increase is moderated by the growth of population. Total gross debt increased approximately 4000 times between 1860 and 1946; during the same period per capita debt increased by less than one-fourth that amount. The effect of population growth upon the per capita debt is most marked between 1870 and 1910. During this period population increased roughly two and one-half times.

1919, from W. I. King, *Wealth and Income of the People of the United States*, N. Y., Macmillan, 1915, p. 129; 1920-44, from Mary S. Painter, "Estimates of Gross National Product, 1919–1928," in *Federal Reserve Bulletin*, September, 1945, p. 873; 1945, 1946, from *Survey of Current Business*.

A comparison of gross debt with national income might have been preferable to the comparison with gross national product. The latter figures were, however, readily available on a comparable basis. King defines national income (which his figures represent) as "the total product of the efforts of the citizens" (p. 124), which appears a close approximation to gross national product. Painter's estimates for the years 1920–29 use the Department of Commerce definition of gross national product, and therefore are comparable with the Commerce figures since 1929 and prior to their revision in 1947.

[6] This matter will be discussed in detail in Chapter 9.

The column in Table 12 which relates gross debt to gross national product demonstrates a further noteworthy modification of the raw figures of gross debt increase. Here the over-all increase between 1860 and 1946 is 77 times. Conclusions as to the significance of the gross debt-gross product ratio are discouraged at this point in our study, since there is great danger of overemphasizing the importance of the capital sum of that debt. Nevertheless it should be said that from almost any point of view the gross debt-gross product ratio is a more important datum for economic investigation of debt problems than is either total gross debt or per capita debt.

State and Local Table 13 gives figures for selected years of state and local government debt. It is to be noted that these figures are not exactly comparable with those of Table 12, as they indicate gross debt less sinking fund balance. They are thus neither gross nor net debt figures, cash balances of the various governments not having been deducted.

TABLE 13 State and Local Gross Debt Less Sinking Fund, Selected Years, 1870–1944 [7]

YEAR	STATE DEBT (*$ millions*)	LOCAL DEBT (*$ millions*)	PER CAPITA STATE & LOCAL (*dollars*)	STATE & LOCAL DEBT AS % OF GROSS NAT'L PRODUCT
1870	353	516	21.83	13.0
1880	275	848	22.40	15.2
1890	211	926	18.06	9.4
1902	235	1,630	23.55	10.4
1912	346	3,475	40.07	12.5
1922	936	7,754	79.87	12.1
1932	2,482	15,216	141.77	31.9
1940	2,925	15,234	137.60	18.7
1942	2,707	14,965	131.23	11.7
1944	2,115	12,812	107.41	7.5

The statistics of state and local debt increase are by no means as striking as are those of the federal government presented in Table

[7] Debt figures, 1870–1944, taken from *Statistical Abstract of the United States;* 1946, from *Governmental Debt in the United States,* 1946. The sources of gross national product figures are given in footnote to Table 12. Since G.N.P. for 1902 and 1912 were not available, the percentage calculation for those years utilizes the G.N.P. for 1900 and 1910, respectively.

12. Nevertheless the patterns are comparable, with two exceptions: the decade of the twenties, during which state and local debt rose rapidly while federal debt was gradually pared down, and the World War II period, during which state and local governments reduced debt while the federal debt sky-rocketed. The latter exception requires no explanation, since state and local revenues rose with war business activity and construction outlays could not be made.

The former exception requires investigation into the causes of the rise of state and local debt during the twenties, while federal debt was being reduced. Unfortunately, complete statistics of the type desired are not available. However, of all divisions of local government, the larger share of debt outstanding is that of cities over 30,000 population, for which statistics are available. In 1930 such cities had outstanding a combined gross debt of 9⅓ billion dollars.[8] Four classes of functions made up almost 80 per cent of this gross debt. They are:

Water supply systems	30.0%
Schools	17.5%
All other public service enterprises	15.5%
Roadways	15.1%
Total	78.1%

The state governments combined had gross debt of $2350 millions in 1930. Of this total, 56 per cent was incurred for highway purposes, with no other purpose accounting for over 10 per cent.[9] The $1317 million of highway debt is considerably higher than the total of all state debt in 1922, as indicated in Table 13.

The evidence is therefore clear that during the decade of the twenties additional state and local debt was incurred largely for highways, schools, water supply systems, and other public service enterprises. The causes of debt increase are thus comparable to the causes of state and local expenditure increase during the same period. The exception is public service enterprises, which are normally purchased or constructed under bond issues. Only a small proportion of highway or school expenditures is normally met with

[8] *Financial Statistics of Cities*, 1930, p. 520.
[9] *Statistical Abstract of the United States*, 1932, p. 211.

borrowed funds. In the statistics of expenditures they are therefore more significant than in the statistics of debt, while the reverse is true of public service enterprises. During the decade of the twenties, federal debt was being reduced by a high level of taxation and a relatively constant level of expenditures, while state and local governments made heavy expenditures while revenues remained relatively constant.

COMPOSITION OF THE FEDERAL DEBT

The securities making up the federal government debt may be separated into categories based upon three different bases of classification. The first classification distinguishes interest-bearing from non-interest-bearing debt. The second distinguishes securities available for purchase by the public from those special issues which can be held only by specified owners. The third distinguishes securities from one another on the basis of maturities—*i.e.*, the time elapsing between the date of issue and the date on which the principal is payable.

Table 14 presents the composition of the federal debt existing June 30, 1945, combining all three types of classification mentioned above. We shall discuss the separate classifications individually by reference to the Table.

Interest-bearing and Non-interest-bearing debt The non-interest-bearing items of the debt are quantitatively unimportant. They are composed of four classes, as indicated in Table 14. When securities mature or are called for payment prior to maturity,[10] interest ceases. At any time some called or matured securities will remain outstanding, owing to loss or destruction, or ignorance or inertia of the holder. Savings and thrift stamps are sold to those who wish to invest in government debt in very small amounts. The expected procedure is for the investor to buy stamps with his small change, eventually accumulating enough to convert them into a small bond. The Excess Profits Tax Refund Bonds arose out of a technical provision in the excess profits tax. This provision granted a 10 per cent credit against the tax, which could be currently taken

[10] Most bond contracts are "callable," providing an option to the borrower to repay principal at any time after a stated date and prior to stated maturity.

TABLE 14 Composition of the Federal Debt, June 30, 1945 [11]

CLASS AND TYPE OF SECURITY	MATURITIES *(from issue date)*	INTEREST RATES (%)	OUTSTANDING *(millions of dollars)*
I. Interest-bearing debt			
A. Public issues			
1 Bonds			
a Treasury bonds	6–50 years	1.5–4.25	106,448
b Savings bonds	10, 12 years	2.5–2.9	45,528
c Depositary bonds	12 years	2.0	505
Total bonds			152,677
2 Notes	2–5 years, except tax series	0.9–1.92	33,630
3 Certificates of Indebtedness	1 year	0.875	34,136
4 Bills	90, 91 days	0.375, 0.376	17,041
B. Special issues			
1 Bonds	10 years	4.75	500
2 Notes	5 years	1.875–4.0	9,816
3 Certificates of Indebtedness	1 year	1.875–4.0	8,495
Total Interest-bearing debt			256,296
II. Non-interest-bearing debt			
A. Matured debt on which interest has ceased	matured	-	280
B. Savings stamps; thrift stamps	at any time	-	177
C. Excess profits tax refund bonds	2–6 years after cessation of hostilities	-	1,028
D. Currency	none	-	1,003
Total non-interest-bearing debt			2,489
Total gross debt			258,629

by the corporation to the extent of 40 per cent of the amount of its own debt retired during the year. The remainder was taken in non-

[11] From *Annual Report of the Secretary of the Treasury*, 1945, pp. 511–29. Totals are not exact sums, because of rounding.

interest-bearing bonds, maturing after cessation of hostilities.[12] The currency included in the public debt consists principally of about $350 million of "greenbacks" and 655 million of Treasury obligations toward redemption of national bank notes outstanding.

Individual items in the category of interest-bearing debt vary in the amount of interest paid and in the method of paying interest. The spread of interest rates for particular types of securities shown in Table 14 represents the upper and lower limits only, and therefore does not show preponderant rates on each class of security outstanding. Study of the actual issues outstanding shows that the greatest concentration of interest rates for each of the various types is as follows:

Bonds	2–2½%
Notes	1–1½%
Certificates	⅞%
Bills	⅜%

As we move from long-term securities to short-term securities a noticeably lower interest rate is evident. This is accounted for largely in terms of the liquidity of the investment to the holder. Temporarily idle funds or newly created bank reserves can be invested in 90-day bills at an extremely low rate, while long-term bonds appeal to the individual or institutional investor, and must carry rates of interest somewhat higher to discount the possibility of a future rise in interest rates.

The liquidity of an investment depends upon the ability (a) to turn it into cash quickly, and (b) to realize a price which maintains the seller's capital. A dollar bill is the most highly liquid asset conceivable. A 90-day Treasury Bill is highly liquid because at the end of its short life it brings par value. A 20-year Treasury bond, on the other hand, although it would likely find a ready market for quick sale, might have to be sold at a discount. If the interest rate at which funds could be safely invested in the market should rise, the market price of existing bonds would fall. This is true because interest and principal on the bond are fixed throughout its life by the conditions of the bond contract, and no buyer would pay par value for the bond when opportunities exist for equally safe investment of his funds

[12] The Tax Adjustment Act of 1945 eliminated the basis for issue of these bonds.

elsewhere at higher return.[13] The element of illiquidity inherent in changing market interest rates is the major factor in explanation of higher rates on long-term than on short-term securities during a low-interest period.

The comparatively low interest rates on all classes of government debt are attributable principally to the safety of those investments. The nation's great resources which stand behind the taxing power, combined with a record of government financial integrity, make government securities the safest of investments. But other factors contribute to currently low interest rates. Tremendous individual and business savings play a part in holding down (private as well as public) interest rates, and possibly more important is bank credit policy in making large bank funds available for investment in the public debt. The latter will be analyzed in the chapter following.

There are two methods of paying interest. The first is the coupon system, by which the holder of the security presents coupons to a bank on stipulated interest dates and receives his interest. Most bonds, notes, and certificates pay interest by this method, payment being made semi-annually. The second is the discount system, by

[13] The formula for present value of an investment with definite or expected maturity is: $P = \frac{A_n}{(1+r)^n}$, where P is present value or price one can afford to pay; A is the future payment or repayment expected, n is the number of years hence the payment or repayment is expected, and r is the rate of return the potential buyer expects to receive on investment of his funds. If I am willing to invest in Treasury bonds at 2%, I will pay par for a 2% bond. This bond pays 2% on the par value per year and returns the principal sum (par value) on maturity. Suppose it is a 20-year 2% bond, par value $100, issued today. The present or capital value represents a series of future payments, *viz.* $2 per year interest for 20 years and $100 principal to be repaid at the end of 20 years. Substituting in the formula we get:

$$P = \frac{\$2}{1.02} + \frac{\$2}{(1.02)^2} + \frac{\$2}{(1.02)^3} + \ . \ . \ . + \frac{\$102}{(1.02)^{20}} = \$100.$$

Now let us suppose that, after holding the bond for ten years, the market rate at which equally safe investments can be made rises to 3%. If I could turn my bond into $100 cash I could reinvest at 3%, but I can sell it only at a discount, since potential buyers can invest at 3%. The amount which a potential buyer could afford to pay for my 10-year-old 2% bond would be:

$$P = \frac{\$2}{1.03} + \frac{\$2}{(1.03)^2} + \frac{\$2}{(1.03)^3} + \ . \ . \ . + \frac{\$102}{(1.03)^{10}} = \$91.47$$

which the redemption value of the security includes the accumulated interest. When the security is redeemed at maturity (or before) the redemption value combines principal and interest. Such securities are sold on a "discount basis," the buyer paying a price to the Treasury which deducts the interest through the life of the security. This method of interest payment is typical of Savings Bonds and Treasury Bills. In the case of Savings Bonds the Treasury establishes the interest (discount) rate payable by establishing the sale price, maturity date, and matured value. The small Series E Savings Bond, for instance, issues for $18.75, and at the end of ten years pays the holder $25.00. The relation between selling price and matured value establishes the interest (discount) rate at 2.9% compounded. When Bills are to be sold the Treasury invites bids on a competitive basis. These bids are prices offered per hundred dollars par value of Bills. In this case it is evident that, since the relation between the bid price and the par value establishes the rate of discount (interest), the buyer determines the rate and not the Treasury, though the Treasury retains the right to accept or reject bids. The great advantage of this method to the Treasury is that it is assured of obtaining funds at the lowest available interest rates.[14]

Public and Special Issues Public issues of federal securities are available for general purchase by individuals, businesses, and banks. There may be limitations upon their purchase, such as the establishment of maximum quantities of Savings Bonds purchasable in any one year. The special issues are securities issued by the Treasury for investment of government trust funds or to make deferred payment to particular classes of persons. Examples of the former are special issues of bonds, notes, and certificates for investment of reserves of the Government Life Insurance Fund, the National Service Life Insurance Fund, the Old Age and Survivors Insurance Fund, the Railroad Retirement Fund, the Civil Service Re-

[14] It should not be assumed that the spread in bid prices is wide. Bills are sold principally to banks, which represent a highly organized market. For example, the highest bid received for Bills issued June 28, 1945, was $99.908 per $100 par value; the lowest bid was $99.905. (*Annual Report of the Secretary of the Treasury*, 1945, p. 287.) The price of Bills was pegged during the recent war and at least into 1947 by the readiness of the Federal Reserve Banks to buy or sell Bills at 3/8 of 1% discount.

tirement Fund, and the Unemployment Trust Fund. An example of the latter is the special issue of adjusted service compensation securities in 1936 to make bonus payments to World War I veterans; the veterans were paid in securities which could be redeemed at any time, but which accumulated interest until their maturity in 1946. A more recent example is the payment of terminal leave to World War II enlisted men by the issue to them of interest-bearing bonds in 1947.

Two significant situations are inherent in the special issues. The first is evident by comparing below the maximum interest rates on public and special issues listed in Table 14.

	PUBLIC ISSUES	SPECIAL ISSUES
Bonds	4.25 *	4.75
Notes	1.92	4.0
Certificates	0.875	4.0

The special issues in every case represent either investment of reserve funds or the payment of soldiers' bonus. In the case of the former the interest rate is determined by actuarial requirements under the retirement or other plan; the Treasury is committed to provide these amounts to the various funds, whether or not they are called interest. On such issues, therefore, the consideration paramount in setting the interest rate was the need of the lender and not the normal desire to obtain funds as cheaply as possible. In the case of the latter the high rate of interest was set to encourage veterans to hold their bonds to maturity rather than to take immediate cash.

The second—and related—situation is that the special issues represent Treasury liabilities which in most cases are assets of other federal governmental agencies. Unless arrangements are radically changed, the Treasury must always have outstanding enough debt to accommodate the investment of special trust funds. At the end of fiscal 1946 such funds totaled just over $22 billion. By no means all of such funds can be expected to continue their increase, but the Old Age and Survivors Fund may grow to $50–60 billions, depend-

* This figure is abnormally high for public issue bonds. It relates to a World War I refunding issue of 1922, consisting of 30-year bonds in an amount less than one billion dollars. In fact if we exclude these issues, totaling slightly over 1% of public issue bonds outstanding, the maximum rate is 3%.

ing upon how thoroughly the original reserve plan is altered. Although at present considerable debt reduction can occur before government reserve plans are embarrassed by the lack of investment outlets for their funds, it is worthy of note that embarrassment is conceivable.[15]

Maturities Four types of securities, differentiated by their maturities, are distinguishable in Table 14. The maturity dates of bonds vary widely, between six and fifty years, though these limits in the range of maturities give little useful information. Study of the description of bond issues outstanding at the end of fiscal 1945 [16] shows three concentrations of maturities. It must be borne in mind that we are here considering maturities in terms of the time elapsing between issue and maturity; we are not considering the dates on which various bonds, issued at different times, will mature. Slightly over half of the bonds outstanding at the end of fiscal 1945 were issued with maturity dates about 10 (9–11) years following their issue. About one-seventh had maturity dates of about 15 (13–18) years, and slightly over one-fifth were issued for periods of about 25 (24–27) years. These three groups account for roughly 90 per cent of the bonds outstanding; the remainder are scattered between six and fifty years.[17]

The Bonds issued by the federal government represent the long-term borrowing of the Treasury. Notes range in maturities from two to five years, Certificates mature in one year, and Bills in 91 days. The issue of securities of such varying maturities reflects the Treas-

[15] To carry the situation further, the Secretary of the Treasury estimated that on June 30, 1945, bank investments in government debt totaled $120 billion, insurance companies held $24 billion, and other corporations and associations held $31 billion (*Annual Report*, 1945, p. 691). These three classes of investors held $175 billion of government debt. It is clear, therefore, that private business concerns have become heavily dependent upon government debt as an outlet for investment funds.

[16] *Annual Report of the Secretary of the Treasury*, 1945, pp. 511–17.

[17] Practically all Treasury Bonds (not including Saving Bonds or special issues) are "callable" by the Treasury prior to their stipulated maturity date, generally by two to five years. Thus, for instance, the "2s of 1953-55" pay coupon interest of 2%, are callable in 1953 and payable in 1955. The callable feature makes possible retirement or replacement before maturity, and thus provides some elasticity in the position of the borrower with respect to earlier retirement or replacement with new securities prior to muturity date.

ury's attempt to tap all sources of loanable funds in the market. Only in this way can the cost of borrowing (interest) be kept to a minimum. It is, however, important that maturities be so arranged that too heavy a strain is not placed upon the market at any moment by the necessity of replacing matured loans with new borrowing.

RETIREMENT OF DEBT

In this section we shall be concerned with the retirement of particular issues, as well as with net reduction of the debt. It is, of course, true that if particular issues are retired and not replaced net reduction in debt occurs. But debt management in modern times has involved much more replacement of maturing debt than net retirement. On page 159 were presented figures showing public debt receipts and expenditures during fiscal 1945. The proceeds of sales of securities during the year amounted to $179 billion. Retirements of securities amounted to $121 billion. Thus, two-thirds of new borrowing during the year was for replacement purposes, the remainder representing net increase in gross debt.

Refunding A debt is *funded* when the treasury borrows by sale of its securities to pay "floating" obligations, such as for salaries or materials. Miscellaneous obligations are thus retired by creating a new group of creditors holding a single type of security. (There is technically no such thing as a federal "floating debt," though local governments have not infrequently paid salaries and purchased materials in "warrants" which are used locally as money when the holder sells his warrant to a bank.) *Refunding* is the process of replacing maturing securities with new. Securities may be redeemed because they are due or by exercising the right to "call" before final maturity. In the latter case government exercises its option to take advantage of better current interest rates or to rearrange the maturities of outstanding debt. Most refunding operations, however, are undertaken because of the necessity of meeting maturity requirements.

Much short-term borrowing (though not all) is undertaken in anticipation of tax collections or long-term borrowing. When Bills are sold in anticipation of tax receipts, it is presumed that these Bills will be retired and not replaced. However, if the rate of spending is

high in relation to taxes, tax collections may be largely used up in retiring the Bills, making necessary further short-term borrowing after tax date in anticipation of later collections. When short-term borrowing occurs in anticipation of long-term borrowing, it serves the necessary purpose of making funds immediately available to the Treasury. The various war loan campaigns to sell bonds to the general public actually performed the immediate function of raising funds largely to pay off maturing Bills held by the banks. In addition, they served the highly useful purpose of transferring a larger part of the public debt to the general public.[18]

In addition to the replacement of short-term loans by longer-term loans, refunding operations often simply replace maturing shorter-term securities by new securities of like type. Some Treasury Notes and most Certificates of Indebtedness were exchanged at par for new and like issues during 1945.[19] This accomplishes simply the postponement of maturities for another ninety days or up to five years, continuing to tap sources of loanable funds desiring such maturities.

Conversion Conversion is a special type of refunding, undertaken prior to maturity of existing loans, to gain some particular advantage to the Treasury. It could be undertaken to promote transfer of debt from banks to individuals and institutional investors, to adjust maturities of outstanding debt to a more easily manageable pattern,[20] or to reduce interest charges.

Brief consideration of the large conversion operations of the British government in 1932 is instructive.[21] The purpose was to re-

[18] This is useful to (1) generate widespread participation in the financial aspects of the war or emergency effort, and to (2) reduce the inflationary pressure upon prices inherent in accumulated idle funds of individuals.

[19] *Annual Report of the Secretary of the Treasury*, 1945, pp. 517, 519.

[20] A proposal was reported in the New York *Times*, April 8, 1946, to convert part of the U. S. federal debt into perpetual debt with no stated maturity date. Such a proposal emphasizes the advantages of such securities to institutional investors, and to the Treasury, which would then be under no compulsions of the calendar to repay or refund. Debt retirement under such a plan would occur either by exercising the option to call the bonds for redemption or to purchase them in the open market.

[21] The story is admirably told in a series of articles and notes in *The Economist* during 1932, particularly in the Notes "War Loan" (July 2, 1932, p. 10) and "The Full Tale of Conversion" (November 5, 1932).

duce interest charges on the post-war debt, and the result was to reduce the annual interest rate on slightly more than one-third of the debt from just under 5 per cent to less than 3½ per cent. This constituted an annual saving in interest charges of roughly £30 million. The problem was to call the existing loans and replace them with securities at lower interest rates. In view of the fact that the Treasury accounts were in questionable balance and the plan was undertaken as a measure of relief to government, there was real danger that the market would not purchase the reconversion loan at low rates of interest. It was partly a question of sturdiness of the investment market against very large new financing, and partly a question of confidence in the government.

The war loans to be converted were called as of December 1, 1932. Holders of called bonds were invited to "continue" after that date in bonds of lower interest. No maturity date was established on the new bonds, though they could be called at any time after 1952. Holders who notified the government by July 31, 1932, of their desire to accept conversion bonds in exchange on December 1 were paid a cash bonus of £1 per £100 of called bonds. Those who wished cash for their called bonds were required to so notify the government by September 30; the remainder were deemed to have accepted conversion.

The Economist wrote: "Considering that, four months ago, the Government's credit was on a 4 per cent basis, at best; that sterling has undergone since mid-summer a serious depreciation; that fully 4 per cent is still obtainable on high grade bonds abroad; and that the budget is balanced precariously enough, even if we pay no more on War Debt account to the United States—the Treasury is entitled to praise for its boldness, adroitness, and success." [22] Successful as the program was, certain features of the circumstances which contributed to its success must be mentioned. It was undertaken on patriotic grounds, and was thus not successful purely on grounds of investor self-interest. The bonus payment for prompt choice to "continue" in low-rate bonds undoubtedly helped. Probably one-third of the converted debt was held by government departments, banks, and insurance companies, upon whom considerable special

[22] November 5, 1932, p. 824.

pressure could be put to lead the conversion parade. Probably most effective in the success of the loan was the current trade stagnation, which had created large amounts of savings looking for investment outlets. Thus, the 3½ per cent yield on conversion securities probably measured quite accurately the supply price of funds available for investment in government debt.

The British conversion problem in 1932 was a special one, owing to its timing, its magnitude, and the conditions under which it took place. When investment funds are readily available at low interest, conversion of a moderate portion of the debt into securities bearing lower interest can be relatively simple. Such has actually been the case in the United States. By refunding at maturity or conversion prior to maturity the high interest bonds of the World War I (and immediate post-war) period still outstanding at the end of 1930 had by 1945 been exchanged for lower interest bonds.[23] Between 1930 and 1945 there was no year without a budget deficit, indicating that no net retirement of debt could have occurred; issues retired must, therefore, have been replaced. In these refunding and conversion operations the large supplies of otherwise idle investment funds have contributed greatly to success.

The Sinking Fund A sinking fund is a fund for retirement (repayment) of funded debt. The creation of a special fund for this purpose has had theoretical justification in the belief that government should impose upon itself requirements for orderly debt retirement. The income of the sinking fund must, of course, be provided out of general governmental revenues—*i.e.*, regular appropriations and/or dedication of certain Treasury revenues to the sinking fund.

A federal sinking fund was first established in 1792, largely because of the effectiveness of the arguments of Alexander Hamilton. With the revision of 1795, certain revenues (principally those from sale of public lands) were dedicated to the fund. One of the interesting episodes of American financial history occurred in connection with Hamilton's proposal of a *cumulative* element in the sinking fund, by which provision interest on government securities bought

[23] With one exception: the 4¼% bonds of 1947 52, issued in 1922, which were neither callable nor payable by June 30, 1945.

by the sinking fund prior to maturity must be paid to the fund for further debt retirement. Hamilton's plan was ridiculed by his opponents as an attempt to retire debt without money. It is clearly evident that Hamilton's intention was to have Congress impose upon itself an obligation to retire debt through the fund at the maximum possible rate, and that interest could as well be paid to the sinking fund as to non-governmental creditors. Nevertheless, a government dedicated to economy and to the use of treasury surplus for debt retirement could accomplish equally large debt retirements under most conditions.

The federal sinking fund now in operation calls for annual appropriations from the general fund, measured by a percentage of the amounts of debt contracted for certain purposes,[24] plus the interest which would have been payable during the year on unmatured bonds and notes purchased or redeemed during the year or previous years. The latter provision embodies Hamilton's cumulative sinking fund feature.

Appropriations to the sinking fund during 1945 amounted to slightly over one-half billion dollars. The sinking fund provisions have not been applied to the funded debt in general, but only to specific issues, which accounts for its meagerness. On the other hand, during a series of deficits, while net new borrowing is constantly going on, there is little point to an iron-clad requirement of debt retirement. Even though money is appropriated to the sinking fund regularly, it is not necessarily used immediately for debt retirement. The sinking fund buys securities in the open market. When market prices are above par it may be penny wise and pound foolish to pay a premium for a security which can be called or paid on maturity

[24] (a) Under the Victory Liberty Loan Act of 1919, 2½% of the aggregate amounts of Liberty Bonds and Victory Notes outstanding on July 1, 1920, less an amount equal to the par amount of any obligation of foreign governments held by the United States on July 1, 1920.

(b) Under the Emergency Relief and Construction Act of 1932, 2½% of the aggregate amount of expenditures from appropriations made or authorized under the Act.

(c) Under the National Industrial Recovery Act, 2½% of the aggregate amount of expenditures from appropriations made or authorized under the Act. The appropriation under these provisions for 1945 amounted to about $⅓ billion.

(*Annual Report of the Secretary of the Treasury*, 1945, p. 566.)

at par, particularly under conditions of low interest rates. The total of funds available to the sinking fund in 1945 was about five billions, yet the fund purchased no securities during the year.

The use of a sinking fund by the federal government has little to recommend it. As currently used by the federal government it is well-nigh meaningless, since accumulation at a rate of one-half billion dollars per year can hardly be said to accomplish any of the results intended for such a fund. Experience has clearly demonstrated that effective sinking fund provisions for orderly debt retirement are not necessary to create confidence of investors in federal issues. The more effective the sinking fund is in binding government to a significant amount of regular debt retirement, the more effective is the barrier to the administration of changing fiscal policy. Surplus revenues constitute the sole source of funds for net retirement of debt; wise refunding and conversion operations offer the most desirable tools for managing interest rates and maturities.

CONTINGENT LIABILITIES OF THE FEDERAL GOVERNMENT

The Treasury has contingent liability—an obligation to make good in case of default by a primary debtor—in connection with its guarantee of the obligations of certain semi-public and public corporations. The simplest and most obvious case is that of Federal Reserve Notes, which are note issues of the Federal Reserve banks redeemable at the Treasury or at any Federal Reserve bank. Since these notes are a prior lien on the assets of the Federal Reserve banks the degree of practical liability of the Treasury is so slight as hardly to deserve mention.

During the 1930's several government corporations were created to administer government policies with respect to extending credit to various segments of the economy. The largest of these were (are) the Commodity Credit Corporation, the Federal Farm Mortgage Corporation, the Federal Housing Administration, the Federal Public Housing Authority, the Home Owners' Loan Corporation, and the Reconstruction Finance Corporation with its many subsidiaries.[25]

[25] An excellent study of the financial relation between the Treasury and government corporations is: H. Walter Hargreaves, "The Guaranteed Security in Federal Finance," *Journal of Political Economy*, Vol. 50, August, 1942. This section leans heavily on Professor Hargreaves' findings.

Most such corporations were created to perform lending functions, which required the raising of loan funds. Two alternatives presented themselves: provision of the funds by the Treasury out of the proceeds of its own borrowing, or direct borrowing by the agencies from the capital market, the securities to be guaranteed by the Treasury. Until 1941 the latter alternative was adopted. Pursuit of this course was first determined upon in the establishment of the RFC in 1932, prior to the "New Deal." The arguments advanced for this course were: (1) By establishing corporate independence of the Treasury, there would be less fear of entrance of the Treasury into the banking field, and RFC could be a business institution immune from bureaucracy; (2) if such a corporation could be set up with its own borrowed funds the federal budget would not be unbalanced thereby, strengthening government's ability to stand firm against miscellaneous inflationist groups; (3) the corporation's debts would be self-liquidating, and thus would not be a burden upon taxpayers. It was recognized from the beginning, however, that Treasury guarantee of principal and interest on the corporation's securities was essential. Otherwise it was highly doubtful that funds could be borrowed on favorable terms by a new corporation formed expressly to rush in where established financial institutions feared to tread.

The RFC pattern was applied to other corporations as they were organized. Before long, however, Congress violated the independence of these corporations by requiring specific loans, and violated the self-liquidating character of the loans by requiring certain agencies to pay governmental subsidies and providing for Treasury replacement of the impairment of their capital which resulted.[26] Since by 1941 the independence and the self-liquidating aspects of many of these corporations had been seriously qualified, the present plan was instituted whereby funds for such corporations were henceforth to be provided by the Treasury.[27] The advantages of this system are several. The needs of the agencies are coordinated

[26] Hargreaves, *op. cit.*, pp. 564–65

[27] In 1945, however, there was partial reversion to the pre-1941 scheme of borrowing by corporations on guaranteed obligations. The borrowing power of FHA and RFC was extended. (*Annual Report of the Secretary of the Treasury*, 1945, p. 88.)

with those of the Treasury; the Treasury can borrow more cheaply than can the agencies; a measure of centralized Treasury control is established, coordinating financial policies of these corporations with fiscal policy.

By the end of fiscal 1946 the amount of Treasury-guaranteed debt of governmental corporations had been reduced from a high of $6 1/3 billion to slightly over one-third billion dollars. However, owing largely to the change in policy in 1941, there was outstanding at the end of 1946 approximately $12 billion of Treasury debt incurred to raise funds for these corporations. Although the latter is a direct and not a contingent obligation of the Treasury, it is still largely self-liquidating.[28] Other things being equal, the burden of debt incurred to provide capital funds for corporations carrying on a lending business is identical, whether the funds are borrowed by the corporation and guaranteed by the Treasury or borrowed directly by the Treasury and lent to the corporation. If the corporation is self-liquidating, both principal and interest of either type of borrowing represent no burden upon the taxpayers. The effect of the change in policy in 1941, substituting Treasury-borrowed funds to the corporations for funds borrowed by these corporations and guaranteed by the Treasury, is to overstate the public debt. This is probably preferable to the understatement which results from Treasury guarantee of corporation-incurred debt.

STATE AND LOCAL DEBT

Much of the preceding discussion applies to state and local as well as to federal debt. The power of state and local governments to borrow depends upon the confidence of investors in the borrowing government. Considerable variation in borrowing power is evident among individual governments; this variation is based upon the previous record of the borrowing government, the adequacy of tax yields in relation to debt outstanding, the type of securities offered, and the condition of the capital market. The important differences between state and local borrowing and federal borrowing will be discussed under separate headings below.

[28] Of this amount 80% represents borrowing for the RFC, *op. cit.*, 1946, p. 604.

Maturities The extensive use of short-term borrowing by the federal government is not typical of state and local governments. At the end of 1946 only approximately 3 per cent of gross state and local debt outstanding was represented by short-term borrowing.[20] Short-term borrowing is represented by bank loans, by scrip and warrants, and by tax- and loan-anticipation certificates. Such loans typically have maturities of less than one year.

Long-term debt of state and local governments is represented by three general types of bonds: general obligation bonds, revenue bonds, and "quasi-revenue" bonds. The first are quantitatively the predominant type; at the end of 1943, 85 per cent of all state and local long-term debt was represented by general obligation bonds. These bonds are general obligations of the issuing government, guaranteed by general governmental revenues. Revenue bonds are bonds which establish claim to particular revenues; they are commonly used to finance the construction or purchase of public service enterprises, and the revenues of the enterprises are dedicated to the payment of interest and principal. Revenue bonds usually do, but need not, carry guarantees by the general treasury. Quasi-revenue bonds are bonds which have certain *tax* revenues dedicated to the payment of their principal and interest. The most important borrowing on this type of bonds is special assessment borrowing; property improvements (such as streets, sidewalks, sewers, schools, etc.) are undertaken with borrowed funds and the revenues from special assessments upon the benefited property owners are dedicated to bond payments. In nearly all cases quasi-revenue bonds are a contingent liability upon the general funds of the treasury of the issuing government.

A highly useful instrument in state and local borrowing is the serial bond. An issue of serial bonds carries varying serial maturities. For instance, a straight twenty-year serial issue would provide for the maturity of one-twentieth of the issue each year for twenty years. The advantages of serial bond issues are several. Although classed as long-term borrowing, they may appeal to investors of short-, intermediate-, and long-term investment funds, thus utilizing

[20] *Governmental Debt in the United States,* 1946, p. 9.

nearly the whole capital market. They provide an inherent plan for orderly retirement without recourse to the sinking fund, and thus appeal both to investors and to government. The advantages to government of retirement outside the sinking fund are regularizing of retirements and economy in accounting. Whatever disadvantages serial bonds possess relate to the rigid program of retirement which they impose upon government.

Interest Rates Interest rates which state and local governments are forced to pay vary among governments. We may state as a generalization that state and local governments borrow at higher interest than does the federal government.[30] The comparatively low rate at which the federal government borrows is due to (1) its excellent record in meeting its obligations, (2) the breadth and diversity of its revenue resources, and (3) its peculiar ability through the banking system to create a market for its securities at low interest. Particular importance should be attached to the last, though the influence of the others cannot be denied.

Default A debtor who fails to meet principal or interest on its obligations is said to be in default. At no time has the federal government defaulted on its obligations.[31] There are few cases of default by state governments even on floating debt, but the record of local governments is not good. It is estimated that 1120 local governments were in default on bonded obligations on Feb-

[30] Simple division of total interest payments during the fiscal year 1943 by gross debt outstanding at the end of the year gives an average rate of interest of 3.7% for state and local governments and 1.4% for the federal government. This simple comparison must, however, be used cautiously, as it is loaded in favor of the federal government. The federal debt increased during fiscal 1943 from $72 billion to $136 billion; on some part of this net increase in debt no interest was paid during 1943. State and local debt actually decreased about a billion dollars during the year. But even if we take note of more minor errors in the computation, such as the inclusion of small non-interest-bearing debt in the federal gross debt, it is evident that the federal government has been able to borrow on considerably more favorable interest terms than has the average government in the state and local groups.

[31] In a very narrow and technical sense the abrogation of the gold clause (refusal to pay in gold as the bond contract specified) in 1933 can be characterized as default. Failure of the United States government to assume the debts of the Confederacy following the Civil War cannot be considered federal default.

ruary 1, 1933; only six states were without defaulting local governments.[32] The cause of default was inability during depression to meet high fixed claims out of diminished revenues, at times made more acute by the failure of banks carrying government deposits.

Mention must be made again of the favored position of the federal government on account of its currency and credit powers. The power to issue currency clearly represented a useful federal revenue instrument during the Civil War. It may be that federal default was avoided at that time by the issue of "greenbacks." The elasticity in bank reserves made possible under the Federal Reserve System offered a useful source of borrowed funds for the federal Treasury which proved to be a great boon during World Wars I and II. State and local governments can avoid defaults only by taxation or by new borrowing from capital markets which they cannot control.

What happens in case of default? In the case of private debt, foreclosure results. Foreclosure of government property is not only infeasible, but unthinkable except in the possible case of revenue bonds issued for the purchase of public utilities. It is, however, feasible to provide for municipal receivers, who take over the fiscal affairs of defaulting local governments, and operate them with a view to eventual repayment of creditors and rehabilitation of local finances. The failure of many state receivership laws lies in excessive subordination of receivers to local legislatures. In cases of receivership, receivers should be given powers to lay and collect taxes under authorization and control of the state government; too often the receiver's revenue powers are limited to borrowing.

In this chapter we have surveyed public debts descriptively. It is hoped that the reader has a working knowledge of the essential facts and mechanics of public borrowing and repayment of debt. The economics of public borrowing we shall discuss in the two following chapters. Chapter 8 deals with the monetary aspects of public borrowing, while Chapter 9 studies the economic burden of debt.

[32] Evans Clark, *The Internal Debts of the United States*, N. Y., Twentieth Century Fund, 1933, p. 270.

RECOMMENDED READINGS

Hansen, A. H., *Fiscal Policy and Business Cycles,* N. Y., Norton, 1941, Chapter 9.

Valuable treatment, not only of the conditions under which debt has grown, but of changes in attitude toward debt.

Jèse, Gaston, "Public Debt," *Encyclopaedia of the Social Sciences.* N. Y., Macmillan, 1934.

Good general discussion of the nature and management of debt. Eessentially descriptive representation of thinking and practice with respect to debt before the depression decade of the thirties, without benefit of more recent analysis.

Studenski, Paul, "The Nature and Functions of Public Loans," in Fagan, E. D. and Macy, C. W., *Public Finance,* N. Y., Longmans, 1934, pp. 667 ff.

Discussion at the elementary level of the nature of public credit and its development. Though not recent, it is good description.

Treasury-guaranteed securities:

Hargreaves, H. W., "The Guaranteed Security in Federal Finance," *Journal of Political Economy,* August, 1942, pp. 559 ff.

Excellent discussion of the provision for capital of government corporations between 1932 and 1942. Good detail concerning debt practices and significant analysis of the contingent debt problem.

CHAPTER 8

PUBLIC DEBT AND THE MONEY SUPPLY

ECONOMIC SIGNIFICANCE OF MONEY SUPPLY

Government borrowing may have significant effects upon the economy through a change in the amount of money in use. It is not uncommon to hear or read that unbalanced governmental budgets create inflationary influences, or that public borrowing is an important cause of inflation. It is our purpose in this chapter to analyze the possible monetary effects of increasing or decreasing public debt. That is, we are here particularly interested in the influence of public debt upon the money supply, and the implications of that influence for the level of prices and of economic activity. We have noted at an earlier point in our study that the introduction of new money into the system can increase the level of national income, and that the destruction of money (retirement of debt to banks) may result in lower income. We consider first the relation of money to prices, and later the mechanics of money increase and decrease through public borrowing and retirement of debt.

By "money supply" we shall mean the quantity in existence of those things which do the money work by acting as a medium of exchange. Included in the money supply are the quantities of "money" narrowly defined as composed of coin and paper money, and of bank deposits subject to check. These are the things which pass as the means of payment in a modern economy.

The quantity of money (currency and checking deposits) has

important significance both to the level of economic activity and to the distribution of wealth and income. The influence of the quantity of money in circulation is felt principally through its effects upon demand and therefore upon the price level. Although it is not within the scope of this book to dwell at length upon monetary theory, we shall consider briefly the "equation of exchange" as a simple and familiar focus of large categories of influences upon the price level.[1] The equation of exchange states that the general level of prices (P) is a function of three variables: the average quantity of money in circulation during the period (M), the velocity of turnover (V) of that money, or the number of times each average unit of M is used during the period, and the volume of goods and services sold during the period (T). The relations among these variables are indicated by the following statement of the equation:

$$P = \frac{M\,V}{T}$$

The equation itself is a truism, representing a summation of all price transactions during the period considered. The truism is evident when the equation is stated in the form: $MV = PT$. Total expenditure for goods and services during a period (MV) must be equal to price per unit times the quantities of goods sold (PT), or the value of all goods exchanged for money during the period.

Admittedly the equation of exchange is not in itself a complete explanation of changes in the price level. Such an explanation involves investigation into the determinants of M, V, and T. It involves explanation of why and how changes in these variables occur. The reasons *why* changes occur are, generally speaking, to be found in the reactions of individuals to economic facts, and are essentially those which we have previously discussed in connection with the behavior of consumption, investment, and hoarding. Explanation of *how* the changes occur requires understanding principally of the mechanics of changes in money and goods.

Movements of the price level, through their effects upon anticipa-

[1] For a brief study or review of monetary theory and the significance of money in the economy, see Lester V. Chandler, *An Introduction to Monetary Theory*, New York, Harper, 1940. The quantity theory is discussed in Chapters 2–4.

tions, may strongly influence the level of employment and economic activity. An increase in MV represents a rise in effective demand for goods, and is normally accompanied—at least in the short run—by a rise in prices. We have seen in Chapter 5 how increases in the price level, normally accompanied by lagging increases in costs, offer profit prospects which are conducive to business expansion. When the price level is falling the same lag in costs augurs reduced profit margins and thus encourages unemployment and a lower level of business activity. Price level stability encourages stability of business activity near the level attained. It is thus seen that, since prices are determinants of the level of economic activity and since the money supply is one of the determinants of the price level, the money supply is a determinant of the level of national income.

This in no way qualifies or confuses the analysis of national income and its determinants in Chapter 4. For MV is total expenditure for goods, and therefore is gross national income, while PT is its counterpart, gross national product. Hoarding, or disuse of income, either takes currency out of circulation or destroys credit money. So long as spendings in Period 2 are equivalent to income of Period 1, the level of income remains unchanged. But if income of Period 1 is hoarded and not spent in Period 2, the level of income can be maintained only by dishoarding of Period 0 income or the creation of new money to make up the deficiency.

We are here interested in the money supply, *i.e.*, the quantity of money in use. But by concentrating our attention upon the money supply as a determinant of price levels we are not denying the importance of the other two determinants: velocity of circulation and volume of trade. In a given instance an increase in the money supply may have no effect upon prices because anticipations are such that new money is not used. In this case increase in the money supply has been neutralized by decrease in velocity of its use. And in a given instance an increase in the money supply may not raise prices because of an equivalent increase in the volume of trade.

We have seen that changes in the money supply can produce changes in prices and thus in the level of national income. But changes in the price level also result in redistribution of wealth and income. The lag of wage and salary incomes behind price changes

results in a worsening of the position of these income receivers during price rises; when prices fall the income position of these classes is enhanced. Creditors lose while debtors gain during price increases; the reverse is true when prices fall.[2]

Wise monetary and fiscal policy require that the money supply behave with sufficient elasticity to finance an expansion of employment and trade, and be subject to the controls necessary to avoid inflationary price increases when full employment is reached. During expansion of production an overly rigid money supply can check that expansion. On the other hand, increase in MV at a rate more rapid than the increase in production can only inflate the prices of these goods, causing wholly unplanned and almost certainly undesirable redistribution of income.

The term "inflation" carries a variety of meanings, and in much of its usage no specific meaning at all. We shall use the term to mean marked price increase due to monetary causes. Inflation results when spending increases more rapidly than do the quantities of goods available for sale. In terms of the equation of exchange, MV increases more rapidly than T, and P rises. The control of incipient inflation requires therefore a reduction of the money supply relative to the rate of physical production, or an increase in production to spread increased money supply over a larger physical quantity of goods.

FISCAL POLICY AND INFLATION

The financial policies of government may promote inflation under circumstances in which the output of goods is subject to limitation. We have already indicated (Chapter 5) that public spending, which can be highly effective in inducing an expansion of business activity during a period of underemployment, should be reduced to a minimum when full employment is reached. If not reduced, government becomes a strong influence in bidding up the prices of limited quantities of goods. A special case is that of war, during which civilian production is rigidly limited while individual

[2] For this reason an interesting but infeasible proposal has recently been advanced. The proposal is that interest and principal payments on government bonds be not in fixed dollar sums, but in fixed quantities of purchasing power. If prices rise during the life of the bond, interest and principal payments would increase proportionately, and *vice versa*.

incomes are high.[3] Under such circumstances it is of course impossible for government to reduce its spending; the instruments of control are heavy taxation, extensive borrowing of surplus income of individuals, rationing, and price fixing. Borrowing from banks should be kept to the minimum level necessary to provide incentives for maximum production, and under conditions which make additional bank credit available only to government, and not to the general public.[4] Taxing and borrowing from individuals remove inflationary funds from the market for civilian goods; the combination of rationing and price fixing is designed to sterilize that portion of surplus incomes not taxed away or borrowed by government.

If surplus incomes were transferred to government by taxation or borrowing, and then spent by government for military goods, average prices of both military and civilian goods would be maintained near former levels. Taxation or borrowing from individuals would take spendable income from civilian goods markets and thus hold demand for those goods in check, while the incomes so transferred to government would be spent for military goods. But presumably an *increase* in military production from period to period is desired. This increase in national output will require the introduction of new money (or dishoarding or increased velocity of money use), which will be provided by newly created bank credit for government. Under the ideal conditions of adequate taxation and borrowing, the problem is to create the new money necessary to purchase increased physical output from period to period without at the same time providing additional available credit to non-governmental users. To the degree that taxation and borrowing are in-

[3] This particular inflation problem has been discussed in Chapter 4, pp. 90 92.

[4] It may be objected that private concerns require expansion capital during war in order to meet war production requirements. The nub of the problem of financing a war without marked inflation is to force savings on the part of individuals by price control and rationing of scarce goods and materials, and to transfer these savings to those who need funds for war purposes—government and war industry. A minimum creation of new money is desirable. To the extent that new funds are necessary to finance plant expansion it is probably better for government to provide the funds by borrowing from the banks, as it did in World War II through Defense Plants Corporation and Smaller War Plants Corporation. The meaning of this will become more clear in our later discussion of the mechanics of credit expansion.

adequate to remove surplus incomes, inflationary funds are left hanging over the civilian goods markets and larger quantities of new money must be created to purchase expanding military production.

Non-inflationary fiscal policy in a post-war reconversion period presents special problems. Technical problems of re-tooling for civilian production will be greater and more time-consuming in some industries than in others, but reconversion will take some time. Production stoppages due to labor difficulties are likely to be wide-spread. In either case, the physical volume of goods is reduced, and fiscal policy should be designed to withhold purchasing power from the market. Since the interim decline in physical production is due to matters of technology and not to entrepreneurial choice, public spending to correct such temporary underemployment cannot have other than inflationary results.[5]

MONETIZATION OF THE PUBLIC DEBT: CURRENCY EXPANSION

The money supply is composed of currency and checking deposits. Study of the inflationary potentialities of public borrowing thus involves consideration of the monetization of the debt in terms of both currency and credit. The former is discussed in this section, the latter in the section following.

The man in the street normally considers monetization of the public debt to mean translation of the debt into circulating currency. The popularity of this view finds its explanation in the experience of the United States prior to World War I. American history offers two striking examples of such monetization, and many more less striking. The outstanding examples are those of the continental currency during the Revolution and the greenbacks of the Civil War.

[5] It is of course probable that physical production should be permanently lower in peace time than in war time. When reconversion to peace is completed it is almost certain that the labor work week should be shortened and many war emergency workers permanently removed from the labor force. And wartime prodigality in the exploitation of natural resources will probably give way to long-run conservation policy.

The Continental Congress began its issues of "Bills of Credit" in 1775, and between that date and 1779 there were forty issues [6] totaling approximately one-fourth billion dollars. It is to be noted that the Congress was newly formed, it had no tax resources separate from the willingness of individual colonies to contribute from their revenues, it had no credit standing either at home or abroad, and there was little free capital in the colonies available for borrowing. The Bills, or "Continentals," were promises of the Congress to pay, based upon the credit of the colonies, which were expected to provide redemption for their apportioned shares. The Bills were simply non-interest-bearing promises to pay, issued as money and supported by various colonial legal tender acts. Beginning in 1776 the Bills depreciated in value. By the end of 1779 they were exchangeable for silver money in the market at about 40 to 1. This depreciation reflected both a loss of confidence in this particular type of money and the inflationary effects of the issues upon prices. In November, 1779, the Congress advised the colonies to fix prices at not over 2000 per cent of the prices of 1774, a figure which reflects a current estimate of the extent of inflation,[7] but the depreciation of paper money had gone so far that such an attempt at stabilization was hopeless.[8]

The greenback inflation of the Civil War took place under somewhat similar circumstances. Although the federal government was well established, its credit standing was quite inadequate and its tax system unproductive. The United States Notes (greenbacks) were issued in small denominations for common circulation and paid out by the Treasury as money for war expenses. In 1862 and 1863 they represented 20 per cent and 40 per cent, respectively, of total Treasury receipts.[9] Professor Mitchell concludes that the effect of the greenbacks upon prices was out of all proportion to their im-

[6] See Davis R. Dewey, *Financial History of the United States*, 12th ed., New York, Longmans, 1934, pp. 36–43.

[7] Chester W. Wright, *Economic History of the United States*, N. Y., McGraw-Hill, 1941, p. 221.

[8] Concurrent issues of paper money by many of the colonies assisted materially in the inflation.

[9] Wesley C. Mitchell, *A History of the Greenbacks*, Chicago, University of Chicago, 1903, p. 129.

portance as a revenue measure, and they were very largely responsible for the war inflation.[10]

History is replete with examples of government issue of circulating notes to meet emergency demands upon the public treasury. The experience of Germany during and after World War I is a classic example of monetization of public debt in the form of currency. China and some of the Balkan countries went through similar experiences in World War II. In all such cases the inadequacy of taxes and the inability or unwillingness to borrow through usual channels on interest-bearing securities led to the issue of paper money.

It is well to note, however, that the over-all effect of such currency-monetization of public debt is similar to taxation; for government gains purchasing power while individuals lose it. It involves a forced contribution to government, though it is inferior to most systems of taxation in that its allocation of burdens is entirely haphazard, offering little possibility of directing burdens to those who should contribute. It almost inevitably inflates profit incomes at the expense of other types.

MONETIZATION OF THE PUBLIC DEBT: CREDIT EXPANSION

A more sophisticated method of monetizing the public debt is that of using the securities issued as the basis for credit expansion, though with less public notice and less public concern. The average man is frightened by the prospect of currency inflation, and regards it as a departure from governmental respectability. Bank credit, on the other hand, is something about which he understands little, and credit inflation has been the subject of far less popular discussion. Thus, although the effects are the same, expansion of credit has received far less public condemnation than has expansion of currency.

Mechanics of Credit Expansion An understanding of the techniques by which public borrowing may increase the credit supply requires some insight into the mechanics of bank credit expansion. The commercial banks which belong to the Federal Reserve System (hereafter called member banks) are required by law to

[10] *Ibid.*, p. 279. Wholesale prices had risen by 1865 to an index of about 230 (1860 = 100). *Ibid.*, p. 277.

hold *as deposits in Federal Reserve banks* their reserves against their own deposits. The amount of reserves required is stipulated by the Board of Governors of the Federal Reserve System, within limits established by law. The Federal Reserve banks (as distinguished from member banks) also have required reserves which they must maintain against deposits of the member banks which they hold and against the notes (currency) which they issue.

Legal reserves required against deposits are stated as a percentage of those deposits. However, since for both types of banks the amount of their deposits is largely determined by the amount of loans they make, these reserve requirements place an effective check upon the volume of bank loans. This is true because the loans which member banks make are normally given in the form of deposit credits to their customers; when a Federal Reserve bank lends to a member bank a deposit is credited to the account of the borrowing member.

Only Federal Reserve banks issue notes, and reserves are required against these issues. The total of potential reserves which the Federal Reserve banks possess must therefore be divided between their deposits and their note issues. An increase of required reserves against the one reduces reserves available for the other. Thus, an increase in public demand for Federal Reserve Notes as circulating money pulls out into circulation funds which could serve as reserves against member bank deposits with the Federal Reserve banks.

An individual member bank can increase its reserves by deposits of cash with the Federal Reserve bank, by presenting to the Federal Reserve bank for clearing checks drawn on other banks in excess of checks drawn on itself and presented for clearing by other banks, and by borrowing from the Federal Reserve bank in the form of a deposit credit. A flow of cash into a member bank in excess of its day-to-day requirements would normally result in deposit of this surplus cash with the Federal Reserve bank. Since the Federal Reserve banks perform the check-clearing function for members, checks are automatically sent there at the end of the business day. Federal Reserve banks then clear checks of the members against one another, debiting the deposit account of the bank on which the check is drawn and crediting the deposit account of the bank presenting

the check for clearance. Thus individual member bank reserve balances with the Federal Reserve banks rise and fall daily through the operation of check clearing. Loans by the Federal Reserve banks to members may be in the form of "advances" or of "discounts." Advances are loans made on members' promissory notes, secured by collaterial. Discounts are loans which result when the Federal Reserve banks purchase from members endorsed "commercial paper" (notes, drafts, bills of exchange) of the types which normally arise out of member bank lending to businesses.

The factors which affect the magnitude of reserves of the individual bank are not identical with those which affect reserves of all member banks taken together. An excess of cash flowing into one bank, increasing its reserves, may be offset by an equivalent loss of reserves by another. And although check clearing causes the reserves of individual banks to rise and fall, it does not affect combined reserves of all banks. Loans by Reserve banks to member banks increase combined member bank reserves; withdrawal of cash from banks for general circulation, or its reverse, decreases or increases combined reserves.

Changes in total member bank reserve balances may result from conscious policy on the part of the Federal Reserve banks to increase or decrease those balances. The open market operations of the Reserve banks are the purchase and sale of government and other securities in the open market on their own account. Suppose, for instance, that it is desired to increase member bank reserves, so as to loosen bank credit to government or business. The Reserve banks can purchase securities from individual investors, corporations, or member banks. The effect is an increase in member bank reserves, accomplished in the following manner: If the Federal Reserve bank buys these securities from non-bank investors, paying for them by check, the seller of the securities normally deposits the check in his bank. The member bank then forwards the check to the Federal Reserve bank for payment, the proceeds of the check being credited to the member bank's deposit account. The member bank's deposits (reserves) with the Federal Reserve bank are in this manner increased. If the Federal Reserve bank buys the securities from the portfolios of member banks, these member banks find them-

selves in possession of checks which are deposited with the Federal Reserve banks. It is thus seen that open market purchases by the Federal Reserve banks result in increased member bank reserves, increasing their lending power.

Conversely, open market sales of securities by the Federal Reserve banks decrease member bank reserves. If sales are made to non-bank investors, they are paid for by purchasers' checks drawn on member banks. When these checks are cleared the reserve balances of member banks are drawn down. If sales are made to banks, these sales are paid for by reduction of member bank reserve balances.

Open market purchases and sales by the Federal Reserve banks are undertaken for the purpose of manipulating member bank reserves, and therefore the easing or tightening of bank credit. It should be noted, however, that this instrument is likely to be more effective in tightening than in loosening credit. A decrease in member bank reserves, if more than sufficient in magnitude to eliminate excess reserves (existing reserves in excess of legal requirements), *will* bring about a reduction in member bank loans in order to reduce the deposits against which the reserves are maintained. On the other hand, increase in bank reserves *may* encourage further lending but does not force it. During the middle nineteen thirties open market purchases increased bank reserves, but the result was principally an increase in excess reserves and relatively little increased lending. Federal Reserve policy can thus urge lending, but can neither force banks to lend nor customers to borrow.

Supply and Use of Member Bank Reserve Funds [11]

The Board of Governors of the Federal Reserve System reports statistics monthly of factors entering into the reserve position of member banks. The categories in which these figures are reported give a useful summary of the interrelations of items affecting reserve balances. They may be summarized as in the outline below.

I. Primary sources of supply of potential member bank reserve funds.

[11] See *Federal Reserve Bulletin*, July, 1935, pp. 419–28, for discussion of this subject.

A. Credit extended to member banks by Federal Reserve banks:
   1. Discounts and advances.
   2. U. S. securities held by Federal Reserve banks.

B. Amount of cash available for bank and other uses:
   1. Monetary gold stock.
   2. Treasury currency outstanding.

II. Uses of potential reserve funds by banks and by others.

A. Bank deposits with Federal Reserve banks (use by banks):
   1. Member bank reserves (deposits with Federal Reserve banks).
   2. Non-member bank deposits with Federal Reserve banks.

B. Uses by others than banks:
   1. Money in circulation.
   2. Treasury cash holdings.
   3. Treasury deposits with Federal Reserve banks.

The sources of supply of potential reserve funds represent funds which may or may not become member bank reserves. Within this category, credit extended by Federal Reserve banks does become member bank reserves, because the credit is extended for that purpose. Member banks do not discount paper with the Reserve banks or secure loans from them except to provide necessary reserves. The U. S. securities held by the Reserve banks represent open market purchases for the purpose of building up member bank reserves.

The amount of cash available is only partly used for bank reserves, the remainder being in the hands of non-bank users. The monetary gold stock arises out of domestic purchases or imports of gold. On purchase or import this gold typically first enters member banks as deposits. Under the gold nationalization policy it is immediately redeposited with the Reserve banks and turned over to the Treasury. In this process both member and Reserve banks gain reserves against which they may hold new deposits.[12] Treasury

[12] Since metallic gold must by law be held by the Treasury, it is represented by non-circulating gold certificates which can be held by the Federal Reserve banks as reserves against their own notes issued (Federal Reserve Notes) or as cash reserves against the member bank and Treasury deposits which they hold.

currency outstanding may be held by the Treasury, by the Reserve banks, or may be in circulation. If it is in circulation it is either held by the banks for till money (which is not *legal* reserves) or by the public generally. Only that part of Treasury currency outstanding which is held by the Reserve banks actually serves as member bank reserves.

Member bank reserves (II, A, 1 in the outline above) at any time represent only a portion of the supply of potential reserve funds. This is due to the need for similar funds by the Treasury, the banks, and the public. It is important for our purposes to note, however, that the supply of potential member bank reserve funds is to some extent, though not entirely, subject to control by the Reserve banks. Those items in I, A in the outline above are subject to Federal Reserve control. Discounts and advances are controlled by persuasion of the member banks to rediscount and borrow or not to do so, and by rates of discount charged the member banks on discounts and advances. Government securities held by the Reserve banks are the result of their open market purchases; the total of such securities held reflects Federal Reserve policy of purchase or sale in the open market.

On the other hand, items in I, B in the outline are not subject to bank control. The size of monetary gold stock depends upon the inflow or outflow of gold determined by conditions of international trade or finance. It is further determined by government policy with respect to the freedom of its movement internationally. Treasury currency outstanding, in so far as it is subject to control, is subject to non-bank (principally Treasury) control.

Let us see how the sources and uses of potential reserve funds behaved between 1940 and 1946. By noting the changes in the statistics we may see more clearly the interrelations of the various items, and also note some of the results of Federal Reserve policy. Table 15 is cast in the form of the outline presented on pages 194 and 195.

It may be seen that the increase in the two totals—supply of funds and use of funds—is accounted for almost entirely by the increase in one item in each of the totals. The increase in supply of funds is due to increased holdings by the Federal Reserve banks of government

TABLE 15 Supply and Use of Member Bank Reserve Funds, 1940, 1946 [13] (in *$ millions*)

	Dec. 31, 1940	April 24, 1946	CHANGE
I SUPPLY OF POTENTIAL RESERVE FUNDS:			
A. Federal Reserve Credit:	2,274	22,901	
1. Discounts and Advances	3	324	+ 321
2. U. S. Securities Held by F. R. Banks	2,184	22,304	+ 20,120
B. Cash Available:	25,082	24,783	
1. Monetary Gold Stock	21,995	20,247	− 1,748
2. Treasury Currency Outstanding	3,087	4,536	+ 1,449
Total Supply of Potential Reserve Funds	27,356	47,685	+ 20,329
II USES OF POTENTIAL RESERVE FUNDS:			
A. Bank Deposits with F. R. Banks	15,759	16,616	
1. Member Bank Reserves	14,026	15,457	+ 1,431
2. Non-member Bank Deposits	1,733	1,159	− 574
B. Uses by others	11,597	31,069	
1. Money in Circulation	8,732	27,877	− 19,145
2. Treasury Cash Holdings	2,213	2,260	+ 47
3. Treasury Deposits with F. R. Banks	368	385	+ 17
Total Funds Used	27,356	47,685	+ 20,329
Member Bank Excess Reserves	6,615	873	− 5,742

securities. This means that the Reserve banks between 1940 and 1946 created potential reserve funds of approximately twenty billion dollars through open market purchases. On the other hand, money in circulation increased during the same period by approximately the same amount. The conclusion must therefore be that the Reserve banks, through open market purchases, created large additional member bank reserves which were subsequently withdrawn in cash and entered into general circulation.

[13] Figures taken from *Federal Reserve Bulletins*, February, 1941, p. 129, and May, 1946, p. 495. The items do not add up to the subtotals, or the subtotals to the totals because of elimination from the table of OTHER RESERVE CREDIT OUTSTANDING, and OTHER FEDERAL RESERVE ACCOUNTS. Both are minor items of little concern to this discussion. The former represents industrial loans and acceptances purchased by the Reserve banks, and the latter represents amounts taken out of the market by Reserve banks for capital, other liabilities, and earnings in excess of amounts paid out for premises, other assets, and expenses.

But does this mean that deposits of member banks did not increase during the war period? At first glance it would appear that, if reserves against member bank deposits (item II, A, 1 in Table 15) had not materially increased during the period, then deposits against which reserves were held could not have increased. This was not the case. The last item added to Table 15 shows that almost half of the reserve balances at the end of 1940 were in excess of requirements; *i.e.* although *required* reserves for the average of all banks in 1940 were just under 20 per cent of deposits, the banks were maintaining a reserve ratio of almost double that amount. The decline of *excess* reserves by the end of April, 1946, amounted to almost six billion dollars. At an average reserve requirement of 20 per cent against deposits, this transfer of reserves from the excess category to the required category would provide legal reserves against an increase of close to thirty billion dollars in deposits. The fact is that between December 31, 1940, and the last half of March, 1946, member bank deposits subject to reserve requirements increased by approximately thirty-six billion dollars.[14]

We see that the magnitude of the bank credit structure is largely dependent upon Federal Reserve policy with respect to the furnishing of member bank reserves. For member banks can lend more or less to business or to government as their reserves rise and fall. At the same time, the desire of the public and the Treasury for loans and for circulating cash will affect the magnitude of the credit structure. The desire for loans will be an important determinant of whether reserve funds are actually used, while the desire for circulating cash will affect the amounts of member bank reserves.

Having analyzed the important factors determining potential lending power of the banking system, we turn to the experience of the last two wars in which the United States was a participant, to

[14] $35,261 million on December 31, 1940 (*Federal Reserve Bulletin*, March 1941, p. 258), and $71,165 million average for the last half of March, 1946 (*Federal Reserve Bulletin*, May, 1946, p. 502). The fact that actual increase in deposits was greater than that shown in the rough calculation above does not mean that in 1946 reserves were below legal requirements. For (1) the calculation above is on the basis of 20% reserve requirements, whereas the actual requirements averaged slightly lower, (2) member bank reserves showed a net increase of $1,431 million between the two dates, which would support deposits of approximately five times that amount.

note how the banking system was instrumental in furnishing to government the financial sinews of war.

Credit Expansion in World War I The Federal Reserve System, which had been established in 1913, provided elasticity in reserves which made possible during World War I generous participation by the banks in Treasury borrowing. An amendment to the Federal Reserve Act in 1917, requiring that all legal reserves of member banks be deposited with the Federal Reserve banks, provided maximum elasticity in the use of reserves. The same amendment reduced reserve requirements, and thus liberated bank funds for direct purchase of Treasury securities or for loans to customers who wished to invest in the expanding government debt.

One technique by which bank credit was made available to government was that of lending by commercial banks to security purchasers at rates of interest which corresponded with interest rates paid by the securities they bought. The impecunious citizen who, by his patriotic spirit and the pressure of his fellow citizens, was urged to buy bonds during liberty bond campaigns could borrow at his bank, deposit the bond purchased as security for the loan, and pay to the bank the same interest on the loan which the Treasury paid to him on the bond. When bank reserves approached the danger point as the result of such (or other) loans, the bank could rediscount the note, with the bond as security, at the Federal Reserve bank, thus building up its reserves. A second method was that of direct purchase by banks of Treasury Certificates of Indebtedness, giving the Treasury deposit credit for the proceeds of the loan. The required legal reserves against these Treasury deposits were acquired through borrowing from the Federal Reserve, with the Certificates as collateral.[15] By either of the two methods mentioned the funds were eventually provided to the Treasury by the Federal Reserve banks, with little necessity for reduction of member bank loans to private individuals and businesses. On April 20, 1917, two weeks after declaration of war by the United States, the Chairman of the Federal Reserve Board addressed a letter to the Federal Reserve banks in which he said, ". . . and the Federal Reserve banks may be

[15] See Jacob H. Hollander, *War Borrowing*, N. Y., Macmillan, 1919, Chapter 4, for an excellent discussion of this procedure.

counted upon by offering liberal terms of rediscounting. . . ."[16] The rediscount rates established were 3½ per cent on notes secured by Treasury Certificates or Liberty Loan Bonds,[17] and 3 per cent on 15-day obligations of member banks secured by Certificates.[18] The latter provision was to induce banks to buy Certificates for their own account; the fifteen-day maturity of the loan was little hindrance, both because it was easily renewable and because within that time the Treasury would have spent a large part of the proceeds of its short-term borrowing, and funds would flow back into the banks from depositors, restoring their reserve position.

By the middle of 1919 it was estimated by the Federal Reserve Board that the banks held in Treasury securities and in paper secured by Treasury securities something over one-third of the total governmental debt outstanding.[19] But such a snapshot does not tell the whole story, as the banks purchased nearly all of the successive issues of loan-anticipation certificates which provided immediate funds to the Treasury prior to popular subscription through the liberty loans. For example, the banks purchased over 99 per cent of the 1919 Victory Loan-anticipation certificates, their purchases amounting to over $6 billion.[20]

Although the extent of monetization of the public debt in World War I was relatively modest, the inflationary effect of new credit created was great, as any student of the behavior of prices during that period is aware. During the period of wartime shortages of goods the effect was not as evident as it became during the reconversion period of 1919–20.

Credit Expansion in World War II The United States entered World War II after almost a decade of excess of savings over investment, during which the excess reserves of commercial banks were high. By 1941, however, it appeared that prospective Treasury war deficits would be so great, combined with growing needs for capital expansion of industry, as to press eventually upon reserve

[16] *Federal Reserve Bulletin,* May 1, 1917, p. 338.
[17] *Op. cit.,* June 1, 1917, p. 429.
[18] *Op. cit.,* July 1, 1917, p. 497. At this time the Certificates bore a rate of interest higher than 3% to the holder.
[19] *Op. cit.,* October 1, 1919, p. 943.
[20] *Op. cit.,* June 1, 1919, p. 609.

limits. It should be borne in mind that by 1940 the member bank policies with respect to the Federal Reserve banks had undergone change from the World War I period. In the first place, under the existence of large excess reserves and pressure from the Reserve banks themselves, member banks had come to look unfavorably upon the practice of being in debt to the Reserve banks. Borrowing and rediscounting, though approved in temporary emergencies, had come to be frowned upon as a general practice, indicating something less than sound bank management. Further, operation under the existence of large excess reserves had developed a heavy dependence by bankers upon excess reserves. Serious reduction in *excess* reserves came to be regarded as an unhealthy sign. The combination of these two developments meant that some re-education of bankers was required, both to encourage the use of excess reserves and to encourage borrowing from the Federal Reserve banks to replenish reserves.

The policies under which tremendous expansion of bank credit took place during World War II are listed and discussed in the following paragraphs.

1. *Use of excess reserves.* Recognizing that the banks had become dependent upon the existence of excess reserves as an indicator of sound banking practice, both the Board of Governors and the Federal Reserve banks used their pursuasive powers to urge that the banks utilize their excess reserves before turning to the central banks for replenishment of those reserves. The president of the Federal Reserve Bank of New York stated in a letter to all member banks in its district in late 1942: "The policy of continuing to hold substantial amounts of idle excess reserves is no longer appropriate nor desirable when such huge amounts of funds are required to finance this country's participation in the war.[21] At about the same time the principal federal and state bank supervising agencies issued a joint statement in which it was pledged that bank examinations would be less strict with regard to bank purchases of Treasury securities and loans to individual subscribers to the public debt.[22]

2. *Open market operations.* Whereas prior to the war open

[21] Reported in *Federal Reserve Bulletin*, December, 1942, p. 1190.
[22] *Op. cit.*, pp. 1174-5.

market operations were carried on primarily for maintaining stability in the market for government securities, after America's entry into the war the primary purpose of such operations was to supply additional reserves to needy banks.[23] A ten-fold increase in Reserve bank holdings of government securities between 1940 and 1946 was shown in Table 15. The securities purchased were principally those of short-term maturity. Of special note was the pegging of the price of Treasury Bills by open market action. On April 30, 1942, it was announced that all Reserve banks stood ready to buy from member banks all Treasury Bills offered, at a discount rate of ⅜ of 1 per cent. On August 7 it was directed that banks selling Bills to the Reserve banks could, if they desired, sell on the stipulation that they be allowed to repurchase the same amount of the same maturity at the same rate of discount at any time prior to their maturity.[24] This had the effect of making Bills highly liquid assets of the member banks; temporary excess reserves could be invested in these securities with the certain knowledge that they could be quickly liquidated at fixed discount when the need for additional reserves arose, and repurchased at the same discount should excess reserves reappear.

3. *Loans and advances.* In order to replenish reserves, the Reserve banks announced at the outbreak of war that they would make advances to all banks on government securities as collateral at par.[25] The discount rate on such advances was established at 1 per cent at all Reserve banks by April, 1942. By the end of 1942, the Reserve banks in the large cities had established a preferential discount rate of ½ of 1 per cent on advances to member banks secured by government securities callable or payable in one year or less.[26] It is thus evident that the Reserve banks were going the limit to provide the reserves necessary for banks to purchase government debt for their own account and to lend to individuals on the security of government obligations.

4. *Reduction in reserve requirements.* By October, 1942, the reserve requirements of New York and Chicago member banks had

[23] *Op. cit.*, September, 1942, p. 872.
[24] *Ibid.*
[25] Reported in *Federal Reserve Bulletin*, January, 1942, p. 2.
[26] *Op. cit.*, December, 1942, pp. 1190–1.

been reduced from 26 per cent to 20 per cent.[27] Relief was provided for this particular group of banks because their reserves were peculiarly limited. They were the heavy buyers of Treasury Bills; the country banks had not been attracted by such low-interest investments. Further, the large flow of cash out of the banks and into circulation was particularly marked in the large financial centers. Finally, Treasury spending did not pour funds into these centers as rapidly as Treasury borrowing removed them; the consequence of this was that New York and Chicago banks lost reserves to banks elsewhere.

A Congressional amendment to the Federal Reserve Act on April 13, 1943, removed the requirement of any legal reserves against so-called "war loan accounts."[28] These were government deposits "arising solely as the result of subscriptions made by or through such member banks" for bonds issued for war purposes.[29] This amendment had the effect of greatly reducing reserve requirements during war loan drives. For when bank depositors purchased bonds their deposits, against which reserves must be maintained, were transferred within the same bank to the account of the government, against which no reserves were required. This liberated reserves during loan drives, and these excess reserves could then be invested by the banks in short-term bills, for which the Reserve banks maintained a pegged market. It is true, of course, that as government spent from its war loan deposits, a reverse substitution of private deposits for reserve-free deposits occurred, requiring a gradual increase in reserves. Nevertheless, this provision relaxed the rigidity of reserve requirements precisely at the time when it was desired to provide easy credit. The amendment led to the same result when banks bought bonds for their own account. Prior to the amendment, such purchases drew down member bank reserves as the proceeds of loans were transferred to the Reserve banks. Subsequent to the amendment, bank purchases had no effect upon reserves, since the war loan deposits were retained at the purchasing banks and required no reserves.

We have so far discussed the creation of new bank reserves

[27] *Op. cit.*, October, 1942, p. 982.
[28] *Op. cit.*, May, 1943, p. 378 and pp. 369–75.
[29] The amendment also eliminated the deposit insurance tax on these deposits.

during World War II only with respect to the member banks. It must be recognized, however, that increased reserves of the member banks (held as deposits with Federal Reserve banks) imply larger amounts of reserves held by the Federal Reserve banks against those deposits. In fact, the creation of reserves for member banks through loans or through open market purchases of securities implies that the Federal Reserve was required to provide funds to create member bank reserves in the form of deposits, and at the same time to hold required reserves against these increased deposits. And the vast increase in Federal Reserve currency (notes) going into circulation during the war required larger total legal reserves against those notes. How were these apparently almost inexhaustible Federal Reserve bank reserves provided?

The answer is to be found principally in the fact that the Federal Reserve banks entered the war period with tremendous excess reserves. At the end of May, 1940, although the reserve ratio required of Federal Reserve banks against their combined deposits and note issues was just under 40 per cent (35 per cent against deposits; 40 per cent against notes), the actual ratio of total reserves to deposit and note liabilities was 88.4 per cent.[30] This provided a very large margin for expansion without additional reserves. But the expansion which took place in the interim period brought this combined reserve ratio down to 45.1 per cent by the end of May, 1945,[31] suggesting possible future inadequacy of Federal Reserve bank reserves, and possible interference with the easy money policy. The following month Congress amended the Act to reduce Federal Reserve bank reserve requirements against both deposits and notes to 25 per cent, thus creating extensive new excess reserves. We see, therefore, that although new reserves in the Federal Reserve banks were not required until late in the war, when tightness approached the reserve requirements were relaxed. In this way no scarcity of Federal Reserve bank reserves was permitted to obstruct the free flow of bank credit to the Treasury.

By way of summary of the results of heavy Treasury borrowing during the war and the reserve-expansion policies of the Federal

[30] *Federal Reserve Bulletin,* July, 1940, p. 685.
[31] *Op. cit.,* July, 1945, p. 657.

Reserve System, the changes in important money and credit data are presented in Table 16.

TABLE 16 Changes in Important Money and Credit Items, 1940–1945 [32]
(in *millions of dollars*)

ITEM	END OF 1940	END OF 1945	CHANGE	% CHANGE
Deposits (all banks in U.S.)	65,021	151,547	+ 86,526	+ 133.1
Loans (all banks in U.S.)	23,741	30,355	+ 6,614	+ 27.8
Investments (all banks in U.S.)	30,448	109,872[a]	+ 79,424	+ 260.8
Excess Reserves (member banks)	6,615	1,213	5,402	- 81.7
Fed. Reserve Credit Extended to Member Banks	2,274	24,172	+ 21,898	+ 963.0
Money in Circulation	8,732	28,515	+ 19,783	+ 226.5

[a] U. S. Government securities held by banks at end of 1945 amounted to $101,295 million. Government securities held thus increased by an amount considerably greater than the change in total investments between the two dates, which indicates an increasing proportion of governments held to total bank investments.

We shall not analyze the items individually, as their significance has been analyzed or suggested earlier in this chapter. It is evident, however, that the banks as a whole not only came out of the war holding over one-third of the public debt, but that they provided a prodigious increase in money in circulation [33] and provided necessary reserves for an amazing increase in deposits. Only a small part of these increases was accomplished by reduction of excess reserves existing at the beginning of the period; the major part was the result of new reserves created for the purpose.

Conclusion: The Effect of Debt Monetization. The debt is monetized when it results in additions to the quantity of money and deposits. The funds necessary for war expenditure could have been raised in much larger measure by taxation or by borrowing from the public. These methods would have simply transferred income from individual receivers to government for expenditure on war production, and would not have created new money.

[32] All figures taken from *Federal Reserve Bulletin.*

[33] Practically the whole of the increase was in Federal Reserve Notes, issued on the basis of Federal Reserve bank holdings of gold and Treasury obligations.

Debt monetization is inflationary, however, only when there is a propensity to spend the large money supply and accumulated liquid assets for a limited physical quantity of goods. During war when civilian goods are scarce and of inferior quality, and when lavish spending is subject to public condemnation on patriotic grounds, surplus incomes and liquid assets may well be held off the market. The inflationary pressures are thus held down, not because of a scarcity of spendable funds, but because the propensity to spend them does not increase *pari passu* with the increase of spendable funds, due to the influence of direct price controls and rationing.

The stage during which the inflationary influences become marked is that immediately following the war. Patriotic inhibitions disappear, pent-up demand for consumption becomes unbearable, and available funds are plentiful. Although the indexes show only minor price increases from the end of World War II to the middle of 1946, this can be explained by the continuance of price controls and the fact that prices on the black market (reputed to be extensive) did not, for obvious reasons, appear in the indexes. The persistent business attacks upon price controls during the spring of 1946 attested to the existence of inflationary demand and disappearance of the wartime patriotic proscription of profiteering.

The post-war inflationary pressures were in 1946 represented by a frightening volume of liquid assets available for spending, including (1) bank deposits of $151 billion, (2) savings bond holdings of $49 billion in the hands of individuals,[34] and (3) a high level of current national income, amounting to $165 billion for the year.[35] The sum of these figures indicates a rough potential of money spending approximately twice the size of current output of goods measured at then current prices.[36]

[34] Bank deposits as of December 31, 1945; savings bond holdings as of May 30, 1946. From *Federal Reserve Bulletin*, June, 1946, pp. 632 and 645, respectively.

[35] National Income Supplement to *Survey of Current Business*, July, 1947, p. 14.

[36] It should be emphasized, of course, that the propensity to spend liquid assets is not 100 per cent of those assets. Nor is there propensity to spend 100 per cent of current income. Nevertheless, price controls were removed in July, 1946, and between that date and June, 1947, wholesale prices rose 31% and the cost of living increased 18%, with no indications of slackening in their upward movement.

The effects of severe inflation are two-fold, as previously discussed: expansion of production is discouraged by cost uncertainties, and specific hardship is imposed upon the lower income and fixed income classes. As to the second, a significant survey by the Department of Agriculture in 1945 showed results summarized in Table 17 below. The evidence of low money income and very low liquid asset holdings of half of the spending units indicates the inability of a large segment of the population to maintain its standard of living under inflation.

TABLE 17 Concentration of Income and Liquid Asset Holdings, End of 1945 [37]

SPENDING UNITS BY PERCENTAGE CLASSES	TOTAL FOR EACH CLASS AS % OF NATIONAL TOTAL	
	Money income	*Liquid asset holdings*
Top 10%	29	60
" 20%	45	77
" 30%	58	87
" 40%	69	93
" 50%	78	97
Bottom 50%	22	3

The post-war inflationary problem was largely created through monetization of the public debt. A large measure of this monetization could have been avoided by heavier war taxation and sales of a larger proportion of the debt to individuals and businesses. But extensive monetization having occurred, and presuming full employment, the reduction of inflationary pressures would involve: (1) cessation of government borrowing at the earliest possible moment; (2) heavier taxation, directed particularly at those classes with high liquid asset holdings and high current income; (3) substitution of Federal Reserve open market sales for open market purchases; (4) transfer of bank-held Treasury securities to the public; (5) major increase in member bank reserve requirements; (6) increase in

[37] Figures selected from *Federal Reserve Bulletin*, June, 1946, p. 574. A "spending unit" is defined as "all persons living in the same dwelling and belonging to the same family who *pool their income* to meet major expenditures." Liquid assets include bank deposits (checking and savings), savings bonds, and all other government bonds.

physical production. Pursuit of such policies would result in a decline in market value of Treasury securities (but not of savings bonds, which are not marketable); some strain upon the banking system, caused both by a decline in value of a large share of its assets and the necessity for credit restriction; and rising interest rates and more stringent requirements of borrowers. But the advantage in avoiding serious inflation would probably be worth many times over the costs involved in post-war credit tightening. Though we are interested here in the monetary aspects of inflation, let us not ignore the fact that a high level of consumption-goods production offers perhaps the greatest promise as an anti-inflation measure.

Our analysis of the process of debt monetization and its effect upon the price level has centered principally around a potentially inflationary period, when anticipations are high and rising, and the propensity to spend for consumption and investment is high. We have pointed out in Chapter 5 that when anticipations are low the auxiliary spending to create income should be from borrowed funds. Further than this, the borrowed funds should represent new money, created for the purpose. In this phase of the cycle, therefore, it is desired that the debt be monetized—that public borrowing create new money from newly created bank reserves.

Three possible sources of borrowed funds for depression deficit spending exist. The first source is that of current private hoarding (current excess of private saving over investment) or past hoards (accumulated in the past through an excess of private saving over private investment). The second source is existing *excess* bank reserves. The third source is that of current net additions to excess bank reserves. Of these three possible sources, the third is least likely to create a further decline in anticipations.

Current hoarding when anticipations are low arises largely out of the desire of business and individuals to increase their liquidity. This being the case, if government were to finance additional expenditures by taxes or forced loans from current hoarding, it is virtually certain that accelerated private hoarding would occur in order to replace liquid hoards being taken by government. Acceleration of the rate of private hoarding is precisely the course to be

avoided. A policy intended to halt the downswing and induce recovery must both substitute public spending for the deficiency in private spending and encourage private spending.

We have seen in this chapter that during the low income-low anticipations era of the thirties, the banks came to depend upon the existence of *excess* reserves as a factor in safe and sound bank operation. This being the case, attempts of the Treasury to borrow away excess reserves from the banks would probably encourage banking policy designed to replace these excess reserves. This replacement of excess reserves would likely come about by increased limitations placed upon private borrowing, including higher (at least not lower) interest rates. Such action by the banks would operate to further discourage spending on investment and consumption, and thus to make more difficult the attainment of desired results in the recovery program.

We are thus left with the necessity of choosing newly created bank reserves as the principal source of borrowed funds with which to finance depression expenditures. The techniques to be employed are some of those utilized during the World War II period. Particular dependence will be placed upon open market purchases to create new reserves. Lower legal reserve requirements will be a necessity, particularly if a significant rise in reserve requirements has occurred in the previous boom period. It is to be noted that a reduction of reserve requirements does not in itself increase the total reserves, but by decreasing the proportion of existing reserves actually required against deposits a larger portion of these reserves is transferred into the excess category. If open market purchases of securities by the Federal Reserve banks and lowering of reserve requirements are inadequate to provide the desired quantity of additional reserves, liberal offerings of Federal Reserve advances and discounts may be employed. This method is probably the least satisfactory of the three because such borrowing is voluntary on the part of individual bankers. The inhibitions of banking conservatism do discourage member bank borrowing from the Federal Reserve banks, while open market purchases and reduction of reserve requirements inevitably create free bank reserves independent of the choices of individual bankers. It may be that direct Treasury borrowing from

the Federal Reserve banks would accomplish the desired results most simply and effectively.

RECOMMENDED READINGS

Robinson, R. I., "Monetary Aspects of National Debt Policy," in *Public Finance and Full Employment,* Washington, Federal Reserve System, 1945, pp. 69–83.

A recommended summary statement of essentially the area covered in the text chapter.

Hansen, A. H., "Inflationary Potentialities of the Public Debt," Chapter 5 in *Curbing Inflation Through Taxation,* N. Y., Tax Institute, 1944.

Particular emphasis upon the relation between debt and propensities to spend, rather than upon the monetization of debt. As such, a useful addition to the material in the text chapter.

Fellner, W., "War Finance and Inflation," *American Economic Review,* June, 1942, pp. 235 ff.

Excellent treatment of the problem of inflation in wartime, with special reference to conditions, 1939–1942.

Williams, J. H., "Implications of Fiscal Policy for Monetary Policy and the Banking System," *American Economic Review Supplement,* March, 1942, pp. 234 ff.

Though the emphasis in this paper is not upon the monetary aspects of public debt, but upon the implications of fiscal policy for the banking system, it deals instructively with the relation of the Treasury to the monetary system. It is by no means an elementary discussion, but is probably not beyond the average reader.

Hollander, Jacob H., *War Borrowing,* N. Y., Macmillan, 1919, Chapters 4, 5.

First-rate analysis of the heavy dependence of the Treasury during World War I upon short-term borrowing. Particular emphasis in these chapters upon the effect of such borrowing upon the money market and upon the price level.

CHAPTER 9

THE BURDEN OF DEBT

A public debt constitutes some economic burden upon the society incurring it. The nature and severity of the burden have, however, frequently been improperly understood, largely because of the temptation to think of public debt in terms of private debt and to apply identical standards to both. It will be the principal purpose of this chapter to explore the similarities and differences between public and private debt, and to analyze the nature of the burden of public debt upon the economy.

The Obverse of Debt: Credit For every dollar of debt outstanding there is a dollar of credit. The liability of the debtor to the creditor is matched by the asset value of the creditor's claim. This is a routine fact which is frequently overlooked when considering the nature of debt. The canons of financial morality generally deplore the condition in which the debtor finds himself while extolling thrift and its economic virtues in the person of the creditor. Yet one cannot occur without the other, unless thrift merely results in hoards.

The essence of debt—public or private—is the use by one person of the savings of another. If by transfer of funds from lender to borrower these funds are more effectively utilized there is no doubt that the circumstances which produce the debt are economically desirable. In this sense there is real point to the assertion that the existence of debt is an indication of economic vitality. Prosperity is accompanied by an increase in private debt, while its decrease typically occurs in depression. It should be clearly evident why this

is so: An increase in consumption and investment (spending) necessitates both the borrowing of existing spendable assets and the borrowing of new money. Net decrease in debt to the banks implies the destruction of money, while net decrease in debt to others normally reflects less active use of funds in the market. The consequence is declining national income. Government borrowing of idle funds in the hands of individuals or of new funds from the banks is likely to be income-inducing, and therefore desirable when underemployment exists. This is the point of the argument advanced in the late nineteen-thirties, that although federal debt had greatly increased since 1929, the total of public and private debt had not increased.[1] The income-maintaining potentialities of public borrowing —spending to offset the decline in private spending—should not require further elaboration here.[2] The leverage effects of both public and private borrowing are similar, and they may logically complement one another—the former being substituted as the latter declines.

To the extent that public debt is held by citizens of the debtor government, "we owe it to ourselves." This is equally true of private debt when viewed in the large. If on the other hand the debt is owed to citizens or governments of other societies, payments on the debt represent deductions from national product, and the standards of national welfare are thereby reduced.[3] This does not mean that funds borrowed from abroad are unproductive to the borrowing economy. It means simply that investment of funds borrowed from abroad produces less net return to the borrowing economy than would similar investment of funds provided at home. The fact that internally-held debts are owed to ourselves is significant in terms of the level of national income. The incurring of debt involves simply transfer of funds within the society; national income at the disposal of the society is not made smaller by debt, but may well be made larger by the expenditure which borrowing allows.

[1] Chairman Eccles, of the Board of Governors of the Federal Reserve System, made this point in a letter to Senator Byrd dated December 23, 1938. *Cf.* Weissman, *Economic Balance and a Balanced Budget*, N. Y., Harper, 1940, p. 176.

[2] See Chapters 4, 5, 6.

[3] Net national income is smaller than gross national product by (among other things) the amount of payments to foreigners on the debt.

But debt has its individual as well as its national aspects. Although we owe internally-held debt to ourselves, those constituting "we" are not necessarily the same individuals as those constituting "ourselves." This is perfectly obvious in the case of private debt, where although both debtor and creditor may be fellow-citizens the debtor and the creditor are not the same individual. In the case of public debt the ultimate debtors (taxpayers) may be, to a greater or less degree, the creditors (bondholders). But it would be coincidental indeed if distribution of ownership of the public debt were identical with distribution of the tax burden, eliminating in one stroke both the advantage to creditors and the burden to taxpayers.

We cannot, therefore, breezily assert that because we owe an internally-held debt to ourselves, there is no burden of debt. For ours is, after all, an economy of individuals; economic burdens are largely of a subjective and individual nature, and must therefore be analyzed in terms of individuals. But it is equally true that individual welfare is dependent to a great degree upon group welfare. Most individuals are far better off at a high than at a low level of employment and national income, and the causation frequently runs from general welfare to individual welfare. The danger is that we become either solely *macro-economists*, concerned with total or average data alone, or *micro*-economists, limiting our observations solely to the individual. To take either position to the exclusion of the other is to develop half-truths. To identify individual debt with public debt in all respects is as wrong as to declare that because we owe it to ourselves an internally held debt imposes no economic burdens. When indebtedness represents funds productively invested, there is no net burden, but a net benefit to society as a whole, for that society is better off than it would have been had the investment not occurred. But the debt itself sets up a system of transfers of principal and interest which may impose specific burdens upon individual members of the society.

THE BENEFITS OF PUBLIC DEBT

Before analyzing the debt burden, we shall consider some mitigating benefits to be derived from the existence of public

debt. We shall dismiss very briefly the almost unlimited potential benefits of the ability to borrow. For respectable governments cannot premanently bind themselves to pay-as-you-go policies. Thus the existence of a strong public credit is highly advantageous to society, and the use of public credit is one of the pillars upon which fiscal policy must stand. Without it the financing of public emergencies would be impossible.

The political advantages of a widely-held public debt, though impossible of measurement, are none the less real. The same arguments which support at least token tax payments by all citizens support widely-held public debt. A government which derives its powers from the consent of the governed requires an interested as well as an informed electorate. Both interest and information are encouraged by financial contact. It is unfortunate, indeed, that so small a proportion of the electorate has traditionally been directly and recognizably affected by governmental fiscal operations. The morale effects of popular war bond drives are a case in point.

The economic advantages of a widely-held public debt are considerable in the maintenance of a high level of consumption. Holdings of highly liquid government bonds by small income receivers represent accumulated assets which may be liquidated for expenditure in emergencies or for purchase of durable consumers' goods. Even if holders have no intention of liquidating bond holdings for consumption expenditure, their very existence as liquid reserves against contingencies will obviate to some degree the need for saving from current income to build up such reserves. Thus, the fact that bonds are held can be assumed to increase for low income spending units their propensity to consume from current incomes.[4] In a potentially inflationary period the increased propensity to spend is by no means desirable; in the long run, however, there is little doubt that the economy requires the

[4] There are those who believe that the World War II nest egg of savings bonds will have the effect of encouraging further saving in the future; that individuals, having tasted the security of reserves, will be encouraged to save further. There are undeniably cases of this sort, though it is believed that their significance is limited. Broadening of social security would reduce the need for less systematic privately-accumulated reserves.

highest level of consumption consistent with savings adequate to meet new capital needs.

The Treasury's estimates of the ownership of United States government securities are given in Table 18 below. It will be noted that ownership by individuals increased during the period at about exactly the same rate as did total government debt. It should be emphasized, however, that this does not mean a like increase in the number of individuals holding savings bonds. A study by the Bureau of Agricultural Economics of liquid assets held at the end of 1945 showed that 37 per cent of spending units (families) in the United States at that time held no war bonds, and that another 37 per cent held less than $500 worth.[5] This means a considerable concentration

TABLE 18 Ownership of U. S. Government Securities, 1942–1946 [6]
($ millions)

END OF MONTH	TOTAL SECURITIES OUT-STANDING	HELD BY:					
		Banks	*Individuals*	*Insurance Companies*	*State & Local Gov'ts*	*Other Corporations & Associations*	*U. S. Gov't Agencies*
1942–June	76,517	28,615	18 200	9,200	600	9,300	10,622
1943–June	139,472	59,402	30,300	13,100	1,300	21,000	14,322
1944–June	201,059	83,301	45,100	17,300	3,200	33,000	19,097
1945–June	256,766	105,892	58,500	22,700	5,300	39,500	24,940
1946–February	278,451	115,404	63,700	24,800	6,400	40,100	28,181

of war bond holdings—actually 62 per cent of war savings bonds were held by the top 10 per cent of spending units. This does not suggest a sufficient dispersion of ownership to accomplish by any means the full advantages of a widely-held public debt.

A further potential advantage in public debt lies in its provision of safe securities in which to invest funds. Investments in the public debt (See Table 18) by insurance companies, by state and local governments, by United States government agencies, and to a considerable extent by other corporations and associations, reflect their need for high grade, liquid objects of investment. It is probable that a significant portion of recent individual savings would not have

[5] *National Survey of Liquid Asset Holdings, Spending, and Saving,* Part One, Washington, June, 1946, p. 6.
[6] Taken from *Federal Reserve Bulletin,* June, 1946, p. 646.

been made in the absence of savings bonds available for purchase. The situation with the banks is quite different. Investment funds were created for the express purpose of providing a market for government securities.

It may, of course, be argued that institutional investors have purchased government securities simply because they were available, while corporate securities of high liquidity, safety, and stability have not existed in sufficient quantity. This is true. But it does not follow that insufficiency of acceptable corporate securities resulted from government debt. Under no practical circumstances can a comparably large volume of corporate bonds be as safe as Treasury bonds. The credit standing of corporations is not equal to that of government, largely because of the incomparably greater financial resources of government. The credit of a firm stands upon its own business policies and the market for its products. Government stands astride the whole economy; its tax resources rise and fall with business boom and depression, but not with the rise and fall of firms or products. The influence of government over the banking system represents a distinct advantage over private corporations in the maintenance of comparative stability and liquidity of its securities. Further, the very magnitude of public borrowing allows provision for a variety of securities appealing to various classes of investors which few private corporations could duplicate. Finally, in government there is not the same sort of separation of management from the lenders. This is not to suggest that holders of government debt run the government; it is merely to say that policies of government are not determined by a group with peculiar financial interest in government often distinct from that of the bondholder.

Circumstances being what they are, it is inevitable that federal securities should be of higher grade than those of corporations. From this it follows naturally enough that insurance companies, trust and thrift organizations, and state and local sinking funds should be compelled to invest a considerable portion of their assets in federal debt. And it is not surprising that, where safety of investment is the paramount consideration, such institutions should choose to purchase public securities in the absence of legal compulsion. The investment of federal trust funds presents a special

situation. Safety of investment is essential. In addition, in what else than Treasury securities could such funds be invested? Investment in state, foreign, local, or corporate bonds would establish a federal government financial interest in the borrowing agency which is inconsistent with the concept of sovereignty. It might subject government to charges of gross favoritism and, in case of default, would involve the establishment of government as claimant in a potentially embarrassing manner. The possibility of exercise of control as creditor might generate fears or situations which are better avoided.

The conclusion is inevitable that public debt is desirable, no matter what its burden, when incurred for the purpose of securing benefits which outweigh the burden. In this sense debt is a necessary evil, like costs of production; if the benefits could be secured with less burden the alternative would be preferable. But as we go on to consider the burden of public debt, it is well to keep in mind that there are mitigating advantages. Alexander Hamilton's belief that a widely-held public debt "will be a powerful cement of Union" is still pertinent. The consumption-inducing potential of the ownership by the public of liquid securities may be an important though by no means the only factor aiding in the maintenance of a high and stable level of national income. And finally, the existence of a large volume of safe and liquid government securities has provided desirable outlets for the savings funds of banks, individual and institutional investors, and governments. It amounts to government guarantee of the safety and liquidity of a major portion of private savings.

THE BURDEN OF THE DEBT AS RELATED TO ITS PRINCIPAL

The burden of a public debt is represented by the economic hardship which it imposes. This hardship may take the form of waste of productive efficiency for the economy as a whole or undesirable economic burdens imposed upon particular classes. The former involves misdirection of production, and when it occurs is far more likely to result from spending than from deficit spending. That is, uneconomic diversion of productive resources to government functions rather than to private functions can occur as easily under a balanced budget as under an unbalanced one. The latter

involves redistribution of wealth and income, which may frequently occur as a result of the decision to borrow and spend rather than to raise spendable funds by taxation. It is essential in any analysis of debt burden to limit our attention to the debt itself. The spending which creates the debt may or may not be justified; study of the burden of debt assumes the debt to be in existence—for whatever reason—and considers the effects of that debt upon the economy.

Although popularly too much significance is attached to the principal of the public debt, there are elements of burden which *may* vary with the size of the principal. So long as the public insists upon measuring debt burden in terms of the magnitude of the principal, fears and hesitations so inspired must be considered an element of debt burden.

The possibility of inflation resulting from the form of borrowing constitutes another element of burden. For if debt is purchased by the banks out of newly-created reserves while the economy is operating near a level of full employment, price inflation will result in redistribution of real income which creates a real burden upon the fixed money income classes. And it is highly unlikely that such redistribution will simply redress a previous maldistribution. Further social cost is incurred through inflation when uncertainty as to further production costs discourages expansion or maintenance of a high level of production. It is well known that inflationary pressures work with varying intensity upon particular production costs at different times; where the bottlenecks will first appear is difficult to determine and upsetting to producers' calculations. Evidently if borrowing is inflationary, the heavier the borrowing (the greater the increase in debt principal) the greater the inflationary possibilities.

The urge to reduce debt principal may involve three kinds of burden. (1) The raising of taxes for debt retirement by a regressive tax system [7] will take funds from those less able to pay and transfer these funds to bondholders who gain relatively little benefit from

[7] A system in which the burden of taxes is heavier upon low income receivers than upon those with high incomes. It does not mean that low income receivers individually pay more taxes, but that they pay more in relation to their ability to contribute.

their receipt. (2) Reduction of expenditure on useful governmental functions will impose burdens upon prior beneficiaries of those functions. (3) Taxes to repay debt held by the banks may result in net destruction of a part of the circulating medium.[8] If reserves freed by repayment of debt to banks are not used as a basis for new loans to private enterprises, the purchasing power taken from taxpayers will not be replaced in the economy. In boom periods such destruction of purchasing power may be desirable, though in other periods is may have an adverse effect upon the income level.

Finally, it is apparent that an existing debt so high as to have largely exhausted government's borrowing power would make further borrowing difficult or impossible, with the resultant loss of benefits which could be gained by new expenditure in excess of current taxes.[9]

All of the above-listed aspects of potential burden taken together are not impressive. Each is but a conditional burden, becoming real when accompanied by unwise policy which could be avoided. Retirement of public debt is in modern times very largely a matter of choice. The issue of government bonds without stated maturity dates is common with many foreign governments. Everywhere (with the exception of many local governments) the possibilities of refunding and conversion suggest that repayment can rather easily be postponed indefinitely. This being the case, the burden of the *principal* of debt is far more hypothetical than actual.

It is unfortunate that so much popular measurement of the assumed burden of debt is related to the magnitude of the principal.[10] For the real burdens are related to interest payments, and

[8] *Cf.* C. R. Whittlesey, "Retirement of Internally Held Debt," *American Economic Review*, September, 1943.

[9] The rigidity of debt limits can create this situation for state and local governments, though it is difficult to imagine exhaustion of the borrowing power of the federal government.

[10] It was common in the early 1930's to state as a rule of thumb that a federal debt of $50 billion represented a maximum that the economy could support. Later in the same decade the figure was not uncommonly set at $100 billion. Still more recently the rule of thumb has been stated in a somewhat more refined and elastic form as "twice the national income." All such rules rest upon quite unsatisfactory grounds; for they are related to absolute principal sums, ignoring the relativity of nearly all factors determining burden.

even their burdensomeness is a relative matter. The size of national income, the nature of the tax system, and the degree of dispersion of security holding are all significant determinants of intensity of burden.

THE BURDEN OF INTEREST PAYMENTS

Transfer Frictions The principal burden of debt is the total costs to the economy or segments of it incurred in connection with the transfers of purchasing power involved in interest payments. These costs are partly money costs, partly subjective costs, applicable to individuals. Most of the money costs of transfer relate to a comparison of the pattern of tax burdens with the pattern of claims for interest upon government. If the interest receivers were, individually, the taxpayers, and if each taxpayer contributed the whole amount which government was to pay him in interest, the burden would be minor indeed.[11] But no such identity of taxpayers and interest-receivers is likely. At the end of the fiscal year 1946, the Treasury estimated ownership of the public debt by various classes of investors to be about as follows: Individuals (including unincorporated businesses and partnerships), 23 per cent; other nonbank investors, 37 per cent; banks, 40 per cent.[12] Although no particular taxes are earmarked for interest payment, the proportions shown bear little resemblance to proportions of federal taxes paid. And of course, within each category of security holders very great variations in holdings exist. The study at the end of 1945 which was referred to in Table 17 showed liquid asset holdings by the bottom 50 per cent of spending units to represent only 3 per cent of total holdings in the nation. It is hardly likely that this large share of the population will be almost completely exempt from federal taxes in the post-war years.

As the effects of the war bond drives wear off, a greater concen-

[11] The burden of interest payments would then consist of (1) the unpleasantness of tax payments *per se*, (2) the frictional losses incurred through the necessity of employing men to administer the transfer, which means passing tax laws, collecting taxes, handling disputes, and paying interest, and (3) the dashing of any hopes bondholders may have had that interest receipts would be net above taxes.

[12] *Annual Report*, 1946, p. 60.

tration of debt holdings in the hands of banks, institutional investors, and higher income individuals is to be expected, while debt holdings by low income individuals will decline. To the degree that lower income individuals contribute in taxes funds which are to be paid to more privileged groups and institutions, a personal burden is imposed upon those least able to pay. The implications of this burden for the whole economy are a lowered level of consumption and the probability of a higher level of hoarding, combining to depress national income.

If taxes upon certain types of business concerns or certain lines of production are made abnormally heavy because of the necessity of meeting high interest charges, the impact of the transfer will be disproportionate. Current taxes upon corporate income in general may well represent this type of case. When corporate profits are taxed twice—as income to the corporation and as income to the stockholder—the burden is relatively severe.[13]

The burden of taxation for interest payments will possess varying severity in different phases of the business cycle. Since interest represents a fixed charge upon the Treasury, taxation to pay a given amount of interest in depression will be far more burdensome than in prosperity. The availability of borrowing in depression to meet interest (and other) expenditure can mitigate the peculiarly intense burden of taxation in depression. And it has been previously indicated (Chapter 5) that such a policy is desirable for counter-cyclical reasons, both to reduce the negative effects of taxation upon anticipations and to put unused savings into private circulation.

It should go without saying that, other things being equal, the larger the volume of interest payments on the debt the greater the economic burden of the debt. Let us note, however, that this is not to state that the larger the debt the greater the burden. For the relation of the size of debt principal to the annual payments has undergone constant change. The decline in interest paid per dollar of federal debt outstanding is shown in Table 19 below.

[13] The example of extremely heavy taxes on cigarettes is not pertinent here, as these excessive taxes are largely passed on to consumers, who bear their "burden."

TABLE 19 Federal Interest-bearing Debt Outstanding, Computed Interest Charge, Computed Rate of Interest, Selected Years, 1924–1946 [14]

END OF FISCAL YEAR	INTEREST-BEARING DEBT (*$ billions*)	COMPUTED ANNUAL INTEREST CHARGE (*$ millions*)	COMPUTED RATE OF INTEREST (%)
1924	21.0	877.0	4.18
1932	19.2	671.6	3.505
1940	42.4	1,094.7	2.583
1946	268.1	5,350.8	1.996

Too much warning can hardly be given against the overestimation of the significance of debt principal. In 1946 the effective rate of interest was less than one-half that in 1924, which is to say that the interest burden (other things constant) upon debt of twenty billion dollars in 1924 was equal to that upon debt of forty-two billions in 1946.

MINIMIZING THE DEBT BURDEN

The only way to avoid debt burden is to avoid debt. Such a suggestion is hardly pertinent, however, in view of the existence of large public debt, incurred, in the main, for essential purposes, and in view of the severe burdens which too rapid retirement would entail. The debt cannot be passed off as burdenless on grounds that "we owe it to ourselves." Nevertheless that burden is a relative burden; a given amount of purchasing power transferred on account of payments on the debt will under varying conditions represent different real burden upon the economy. In the final analysis the burden of interest transfers is really a question of the economic burdens of taxes. Some of the variables have been suggested above and will be repeated.

Borrowing vs. Taxation for Debt Service The method used in raising funds to be paid as interest will have important bear-

[14] *Annual Report of the Secretary of the Treasury*, 1946, p. 546. Computed interest includes coupon interest on Treasury bonds, notes, and certificates; on savings bonds and notes at rates effective if held to maturity; and discount on bills.

ing upon the intensity of the transfer burden. In periods of marked underemployment the burden of raising funds for interest or repayment of debt will be less if these funds are borrowed. This is of course true of *immediate* burden, and will hold true so long as the conditions of underemployment continue. We must not overlook the fact, however, that borrowing for payment of interest increases the principal of the gross debt, and therefore (other things equal) increases the amount of interest to be paid on the total debt. In periods of full employment the reverse is likely to be true; taxation of a high income economy may well be less burdensome than borrowing from individuals, and will be less inflationary than borrowing from banks.

1. *The Type of Borrowing* Borrowing from banks whose reserves are increased to provide the funds will always be immediately less burdensome than borrowing from individuals, since borrowing from banks out of newly created reserves implies the placing of "new money" into the hands of recipients of governmental expenditure and of interest receivers. If the current level of national income is such as to require the introduction of new money, this procedure makes the "transfer" almost completely burdenless. On the other hand, at a nearly full employment level of national income, such a procedure will accentuate boom tendencies, and is inferior both immediately and in the long run to borrowing from individuals. In fact, taxation to raise funds for interest payments is in most instances of high employment preferable to borrowing, either from banks or from individuals. As a general rule, therefore, indicated policy is to tax in periods of high employment and to borrow from banks in periods of low employment.

2. *The Type of Taxation.* A tax system which falls heavily on the low income receiver will impose greater burden per dollar collected than will a tax system which falls upon incomes in excess of consumption requirements. Thus, if funds are raised to meet interest payments by sales taxes upon common articles of consumption, the burden is necessarily heavier than it would be if such funds were taken by progressive taxes upon net income with a reasonable personal exemption. The problem of raising tax revenues with minimum

burden upon the economy will be a major consideration in our later study of taxation. For the present it is important only to state the evident fact that while other things remain the same a given volume of tax revenue can be raised by good or bad taxes, and whether they are good or bad depends very largely upon how burdensome they are upon taxpayers.

Dispersion of Debt Ownership The burden of taxes paid for debt service may be mitigated by receipt of interest by the persons who pay the taxes. Except for the frictional loss involved in the transfer, the burden would then be the subjective one of failure to receive net interest income after taxes. By and large, except for the probable effects upon business incentives, the ideal would be ownership of securities by the lower income classes and a tax system receiving its principal contributions from the high income classes. The former aspect of the ideal is hardly attainable under any conceivable circumstances; the latter characterizes the present federal tax system, though not the tax systems of states and cities. It may be noted that tax exemption of the income from government securities points toward this ideal *if* public debt is held by the lower income classes. But since the public debt tends to be held by individuals in the higher income groups and by investing institutions, tax exemption in fact tends to accentuate rather than to mitigate the debt burden.

National Income and Debt Burden Probably the most important variable determinant of the intensity of the debt burden is the level of national income. This is an extremely important fact to be kept in mind in discussion of deficit spending to promote a high level of national income. For if successful such a program, while increasing the debt principal and probably the annual interest charge, carries its own mitigation of debt burden. Looked at from the point of view of the economy generally, although the interest charge on the federal debt was eight times as great in 1946 as it was in 1932,[15] the national income was four times as large in the former as in the latter year, which means that the proportion of income devoted to public debt interest was less than twice as great in 1946 as in 1932. Actually, however, if we allow for operation of

[15] See Table 19.

the economic principal of diminishing marginal utility,[16] the burden of transferring 1/31 of a 165 billion dollar national income in 1946 might well be less than the burden of transferring 1/60 of the 40 billion dollar national income in 1932.[17]

A high national income will by sheer weight of proportion reduce the burden of debt. The extent to which this reduction in burden is shared by individuals depends upon the distribution of income among individuals as compared to the incidence of the tax or borrowing system and the distributive pattern of interest payments. Nicer adjustment of the dollar burden among individuals actually reduces the real burden, while increase of national income at a rate more rapid than the increase of dollar burden will reduce real burden, independent of the nicety of its distribution. As Mr. Evsey Domar has said: "If all the people and organizations who work and study, write articles and make speeches, worry and spend sleepless nights —all because of fear of the debt—could forget about it for a while and spend even half their efforts trying to find ways of achieving a growing national income, their contribution to the benefit and welfare of humanity—and the solution of the debt problem—would be immeasurable." [18]

Reduction of Debt Burden by Manipulation The burden of debt can under certain conditions be reduced by the artificial creation of markets for government securities bearing lower interest or no interest. By the National Banking Acts of 1863 and 1864, state bank notes were taxed out of existence and national banks were allowed to circulate their own notes upon the purchase and deposit of Treasury bonds. This system created an artificial market in the banks for government debt which previously could be sold only with difficulty. Although this was by no means the only reason

[16] The larger the income the less utility attached to the marginal (or last) unit of that income. Consequently the larger the income the less the subjective sacrifice involved in giving up a given dollar to the tax gatherer.

[17] Such a comparison assumes reasonable similarity in the two years chosen for our example of tax systems, sources of borrowed funds, dispersion of debtholding, and method (taxation or borrowing) of raising the necessary funds. It is probable that in the two years selected these factors were reasonably similar. But even if not, the principle stands.

[18] E. D. Domar, "The 'Burden of the Debt' and the National Income," *American Economic Review*, December, 1944, p. 823.

for establishment of the national banking system, it was a potent one. The circulation privilege was valuable to the national banks, and under the refunding act of 1900, only new refunding 2 per cent bonds were made eligible for the support of note circulation. The effect was replacement of 3, 4, and 5 per cent bonds by 2 per cent bonds. This is clearly the use of an artificially created market to reduce the interest burden on the debt.

A somewhat comparable action could have been taken following World War II. If bank reserve requirements had been greatly increased, as they should have been as an anti-inflation measure, a part of the newly-required reserves might well have been non-interest-bearing Treasury bonds. A part of existing debt would then be converted into this special type of bond which banks must hold in large volume in order to carry on their normal loan-deposit operations. This would clearly be the creation of an artificial market for otherwise unattractive securities, and would reduce the interest burden of debt outstanding. The principal reaction against such a plan appears to emphasize the reduction in earning power of the banks. This would be a matter of greater concern if their earning power were more precarious than it is. During 1945 the member banks as a group earned net after federal income taxes 10.9 per cent on their total capital.[10] Slightly less than half of net profits was received as interest on United States government securities. Other things remaining the same, replacement of bank holdings of government securities by bonds carrying no interest would reduce profits by approximately one-half. But other things could not be expected to remain equal. In order to improve earnings the banks would be expected to make loans somewhat more risky at somewhat higher interest than existing commercial loans now pay. If the Federal Reserve banks were to abandon their inflationary policy of open market purchases of securities, it is reasonable to expect that interest rates would rise in a prosperous period (and in a period of underemployment open market purchases could be quickly reinstated). The banks now fear an increase in the interest rate because of the depressing effect of such an increase upon the capital value of the bonds they now hold. If, however, these bonds were to be converted at par into non-

[10] *Federal Reserve Bulletin,* June, 1946, p. 681.

interest-bearing bonds to be held as reserves, and if these reserve bonds could always be valued at par for reserve purposes, the effect of a rise in interest rates probably would, on balance, be favorable to the banks.

The banks are of course so essential to the operation of the economy (and the Treasury) that their operations must be profitable enough to keep them in business. On the other hand, a large share of their earnings from government securities is due to the governmentally-inspired policy of creating reserves which make possible bank purchase of these securities. Thus during the period of rapid increase in public debt, the increase in bank income has been due basically to Treasury monetary policy. On these grounds there is reasonable basis for a change in reserve requirements which reduces interest payments to the banks. Such a policy is further bolstered by the anti-inflationary potentialities in sterilizing bank-held government debt.

BORROWING AND THE COST OF WAR

Many of the realities concerning the burden of public debt are more clearly evident in connection with the challenge presented by the necessities of war finance: to tax or to borrow. The proportion in which each is used is to a considerable degree determined by day-to-day opportunities. Nevertheless the facing of the problem urges establishment of definite ideals in wartime fiscal policy, and criticism of practice in terms of those ideals. Because the problem is huge and calls for some sort of immediate answer in wartime, and because idealism is given somewhat freer rein in the surge of patriotic sentiment, tradition in public finance is likely to offer somewhat less resistance to radical change than in peacetime.

If we were given *carte blanche* to establish the proper proportions of war expenditures to be met by taxes and by loans, what should be proposed? These objectives of policy are suggested as basic:

1. Funds should be forthcoming when needed and in amounts needed; finance should never obstruct the satisfaction of essential military or civilian needs.

2. Economic costs should be shared proportionately, so that individuals and firms stand after the war in essentially the same relation to one another as when they entered the war.

The first is clearly indicated by the over-riding necessity of victory. The second implies that price increases should be limited to those required to provide necessary incentives to production. It is highly questionable policy to grasp a war emergency as an opportunity to redress the balance of economic welfare, for two reasons.[20] The first is that policy is to that extent diverted from the war problem. The second—and more important—is that, since prices are so closely interwoven, if some prices are permitted to rise it is inevitable both that other costs of production will rise and that real incomes of some groups will fall. In either case it is but a matter of time before the price control line will be dented elsewhere.

Inevitably short-term borrowing will play an important part in war finance. Even though the decision may be to pay the greater share of war expenses by taxation, legislation of new taxes takes time and some further time will elapse before collection of new taxes will begin. There must therefore be tax-anticipation borrowing. And to the extent that the war is financed by long-term loans there will likewise be loan-anticipation borrowing. The major financial policy decision is thus between taxation and long-term borrowing.

Postponement of War Costs Let us dispose immediately of the popular notion that borrowing to finance a war transfers the burden of war cost to a later generation. If we talk of cost in real terms, it is evident that the war is fought with goods produced during the war. The real cost is in labor performed, materials used, and equipment depreciated, and this is a matter not related to the method of finance. It is not possible to fight a war with materials produced by the post-war generation, except to the extent that depreciating equipment is not replaced during the war and must be replaced by post-war labor, and that war dissipation of resources

[20] During the early years of World War II there was feeling even among supposedly impartial persons that agricultural prices should remain uncontrolled to offset the effects of the previous long period of low agricultural income.

makes production in the post-war period more costly in terms of the real effort required to attain a given output.

In the purely monetary sense it is likewise true that the burden of war cost cannot by borrowing be postponed to a later generation. For funds borrowed during the war to pay current costs are funds given up by the war generation. And when in the post-war period the loans are repaid they are repaid to the current post-war generation holding the securities. Since the post-war generation inherits the assets as well as the debt liabilities it is hardly possible to conclude that this generation is paying money war costs. Thus, although it may seem attractive that a post-war generation which inherits the benefits of victorious war should bear a part of its cost, this is possible only to a very limited degree. And to the degree that cost is transferred to a later generation, this occurs not at all because a policy of borrowing was pursued but because of the partial exhaustion of productive resources. The transfer is the result of the nature of war and not of the method of its financing.

Distribution of War Costs Although the bearing of war costs cannot be postponed by the method of financing, their distribution among members of society can. The clear analysis of the late Professor Davenport may be briefly paraphrased as follows.[21] Since a large part of total wartime production is not available for civilian use, labor's standard of living during the war cannot rise in proportion to the effort which labor puts forth. As prices rise, wages lagging, *real* wages fall while profits rise. If government taxes profits heavily enough to remove all windfall profits due to the lag of costs and enough of normal profits to reduce the living standard of profit-makers in the proportion by which labor's living standard is reduced, all classes will have shared proportionately in war costs. If, on the other hand, government finances war by borrowing, the principal buyers of bonds will be profit-makers, who have war-produced surplus incomes to invest. The purchasers of bonds thus establish claims to post-war production. Davenport's point is that, when war is financed by borrowing under typical war circumstances of production and prices, labor pays twice: once in loss of real income during

[21] H. J. Davenport, "The War-Tax Paradox," *American Economic Review*, March, 1919, pp. 34–46.

the war and again after the war in taxes to repay the government debt. Profit-makers, on the other hand, experience only net gain. The disparity in contribution is accentuated by the fact that as prices fall in the post-war period the claims of bondholders represent increased real claims upon post-war production.

The two classes concerned might better be more broadly termed as those whose money incomes lag behind and those whose money incomes run ahead of prices during wartime. This preserves all of the truths of the analysis while at the same time eliminating terminologies which carry overtones of "class warfare." And it is undoubtedly true that individuals within any class may fare quite differently during a war period. What assumptions are inherent in Davenport's argument? The first is that inflation occurs and that certain incomes lag behind prices so that others increase more rapidly. He would be a blind optimist indeed who would deny that this assumption conforms with actual war experience. The second assumption is that the post-war tax system is more regressive than is bondholding. This is likewise not widely at variance with the facts, even though the tax system may not be truly regressive.

Even though the inequities involved may in any war period be less severe than Davenport implies, the analysis points to distinct social evils of typical wartime financial policy of two sorts: heavy dependence upon loans rather than taxes, and inadequate efforts to prevent inflation.

Commission of the former error almost inevitably leads to commission of the latter. For failure to tax away inflationary incomes leaves as the only alternative the borrowing of these inflationary incomes. Lacking compulsion, however, borrowing can hardly hope to close the inflationary gap. Suppose that during a war year national product is 150 billion dollars, represented by half civilian and half military goods. The problem of inflation control centers around the necessity of transferring nearly 75 billion dollars of private income to government. The proportion of the approximately 75 billion dollars not transferred to government by taxation should be transferred by borrowing. But the desire to increase consumption from increased income and the desire or inertia which results in increased liquid bank deposits will probably thwart government's desire that these

funds be wholly invested in war loans. The deficiency must be borrowed by the Treasury from the banks, since it must have the money to buy military goods, and this borrowing will inevitably be from "new money" out of created bank reserves.

Forced lending of untaxed surplus income to government could accomplish the same immediate anti-inflationary results as would taxation. This could be done by measures similar to taxation in coerciveness, but allowing post-war credits against amounts paid in.[22] Under such a scheme a large share of incomes would be taken in taxes, and a further share would be taken for which bonds are given the payer. These bonds would have post-war maturity dates and would not be redeemable prior to these dates. Such a plan would not only remove inflationary pressure during the war, but would provide widespread holding of public debt, with all of the post-war advantages accruing therefrom. Sensible as the proposal was, it was very little used in the United States. England provided for post-war refunds of a considerable proportion of income taxes on low income receivers,[23] and of the top 20 per cent of the 100 per cent excess profits tax under certain specified conditions. In the United States the only use of the scheme was in connection with the excess profits tax during the years 1941–43. Ten per cent of the tax could be deducted from tax paid if (within limits) it was used for retirement of the corporation's debt, and if not so used it could be taken in non-interest-bearing bonds maturing two to six years after cessation of hostilities.[24]

It is clear that in the absence of forced saving, principal reliance should be placed upon taxation in wartime. Though the proportion of war expenditures met by taxation cannot in a major war be 100

[22] An excellent discussion of the policy of "deferred pay" is to be found in J. M. Keynes, *How to Pay for the War*, New York, Harcourt, Brace, 1940, Chapters 5 and 6.

[23] ". . . in 1941–42 income tax had been extended to 5½ million workers, who contributed 125 million [£]; but of this amount some 60 million was treated as credits, *i.e.*, was credited to the taxpayer in a savings account to be repaid after the war." (*Annual Report of the Bank for International Settlements*, March 31, 1942, reprinted in *Federal Reserve Bulletin*, January, 1943. Quotation from p. 19.)

[24] The amount of such bonds outstanding at the end of fiscal 1945 was just over $1 billion. *Annual Report of the Secretary of the Treasury*, 1945, p. 528.

per cent, the nearest possible approach to this figure is desirable. The records of the various warring nations in this respect are not good, though some records are better than others. Although final figures are not available, Table 20 shows the experience of principal belligerents during the earlier years of the war.

TABLE 20 Per Cent of Total Expenditures Met by Current Taxation[25]

COUNTRY	FISCAL YEARS COVERED	TAXES AS % OF TOTAL EXPENDITURES
United States	1940–44	41
United Kingdom	1939–44	47
Canada	1940–44	50
Japan	1943–45	27
Germany	1939–45 (first half)	40
France	1940–44	32

It is outside the province of this book to analyze the whole problem of price control in wartime. It should be clear, however, that the effectiveness of taxation (and the form of borrowing) in preventing inflationary pressures is a basic aspect of the problem. The more successful the methods of war finance in preventing inflationary pressures, the greater the effectiveness of direct price controls.

CONCLUSIONS CONCERNING PUBLIC DEBT BURDENS

For a society as a whole the burden of debt of given size is greater when the evidences of debt (securities) are held by persons outside that society than when held by members of the society itself. This follows from the fact that payments on the debt

[25] Computed from the following sources: Bank for International Settlements, *Fourteenth Annual Report*, 31 March, 1944: U. S., p. 170; United Kingdom, p. 180; Japan, p. 193; Germany, p. 200; France, p. 214. Canadian figures from H. L. Seligman, "Patterns of Wartime Borrowing in the United States, the United Kingdom, and Canada," *Federal Reserve Bulletin*, November, 1944, p. 1057. Figures for Germany and Japan must be used cautiously, both because they are subject to considerable error and because their meaning for inflation is not parallel with those of other countries. In the case of other countries the difference between 100% and the per cent listed represents the proportion of borrowing. In the cases of Germany and Japan, levies in money and in kind upon conquered territories represented considerable amounts which have effects similar to taxation.

represent deductions from gross social product, thus diminishing social income. But the fact that a society as a whole owes debt to itself does not eliminate debt burdens. The real burden of internally held debt is the sum of the burdens upon individuals in that society resulting from the transfer of income from taxpayers and lenders for the purpose of meeting interest and retirement obligations. It is the loss of opportunity to use realized income for want satisfaction.

The intensity of burden of internally held debt of a given size at a given time will depend upon several factors. The pattern of taxation as related to the pattern of debt ownership is significant. Were these two patterns identical—so that individuals simply paid to themselves—the burden would be minor indeed. If the pattern of taxation is less progressive [26] than the pattern of debt ownership, a redistribution of income from those of lower income to those of higher income occurs. This is undesirable from almost any point of view, and tends to maximize the social burden of debt. On the other hand, if the pattern of taxation is more progressive than that of debt ownership the redistribution of income which takes place is in the direction of greater equality. Such redistribution involves relatively smaller net burden, and may well provide benefits in an improvement of the level of consumption which create net social gain. When we look at the facts, however, it appears that present patterns of federal debt ownership and federal taxation show the first to be somewhat more progresive than the second. In the cases of state and local governments the pattern of taxation is typically regressive, while the pattern of debt ownership is highly progressive. The burden per dollar of state and local debt is thus comparatively great; from the point of view of debt burdens, therefore, it is fortunate that the great bulk of public debt is at the federal and not at the state and local level.

Certainly the most important single determinant of debt burden is the level of national income. The existing high level of public debt makes this the overriding consideration in minimizing debt burden.

[26] That is, payments to debt holders in the higher income brackets are more than proportional to their tax contributions, and thus the proportion of tax payments by the lower income classes is greater than their proportion of total receipts of interest and principal on the debt.

For the prospect of major reduction in debt in the near future is relatively unpromising, since even relatively large budget surpluses can accomplish only small proportionate reduction in a debt of $260 billion. Major reduction being unlikely, and levels of interest on existing debt offering little or no potentialities for reduction,[27] the essentiality of high employment and income levels becomes apparent as the only method by which the debt may be made easily bearable.

Sensible approach to the analysis of debt burdens requires that the size of debt principal be de-emphasized. For as we have seen, not only are the transfers of income which constitute debt burden principally those which relate to interest and not principal payments, but the size of principal is an inaccurate measure of the magnitude of these transfers. The principal determinants of debt burden are thus: (1) the magnitude of annual transfers for debt service, (2) the pattern of debt ownership within the economy, (3) the type of tax system, and (4) the level of national income.

RECOMMENDED READINGS

Domar, E. D., "Public Debt and the National Income," in *Public Finance and Full Employment*, Washington, Federal Reserve System, 1945, pp. 53–68.

A simple and informative discussion of the influence of debt upon the level of national income.

Wright, D. McC., "The Economic Limit and Economic Burden of an Internally Held National Debt," *Quarterly Journal of Economics*, November, 1940, pp. 116 ff.

A balanced discussion of economic factors in debt burden. Essentially the same discussion appears in Wright's *The Creation of Purchasing Power*.

Eccles, M. S., Letter to Senator Byrd, reproduced in Weissman, R. L., *Economic Balance and a Balanced Budget; Public Papers of Marriner S. Eccles*, N. Y., Harper, 1940, Chapter 10.

A clear statement of the relation of the level of income to the severity of debt burden.

Hansen, A. H., "Moulton's 'The New Philosophy of Public Debt,'" Ap-

[27] Unless, of course, a sizeable part of the debt were to be made interest-free in connection with increased bank reserve requirements.

pendix A in Hansen and Perloff, *State and Local Finance in the National Economy*, N. Y., Norton, 1944.

A review of Moulton's book. This summary of the issues outlines quite clearly the differences in point of view between the moderate liberals and the moderate conservatives.

Hansen, A. H., "Federal Debt Policy," *Proceedings, National Tax Association*, 1943, pp. 256–67.

Fairchild, F. R., "The National Debt After the War," *ibid.*, pp. 268–84.

The above two papers taken together, and including the ensuing discussion, constitute a full-dress debate on the subject of the federal debt.

Swanson, E. W. and Schmidt, E. P., *Economic Stagnation or Progress*, N. Y., McGraw-Hill, 1946, Chapter 8.

A statement of the extreme orthodox position. Largely quotation, and hard reading on account of lack of integration and failure to state background of arguments.

CHAPTER 10

PUBLIC REVENUES: GENERAL CONSIDERATIONS

Chapters 7, 8, and 9 have discused the principal non-revenue receipts of government—public borrowings. In this and following chapters, we shall be concerned with the revenue receipts of government—those receipts which increase the funds over which the Treasury has control without a comparable increase in debt obligations. The most important type of revenue receipt is the tax, though there are other types with varying revenue significance.

CLASSIFICATION OF REVENUE RECEIPTS

Much energy can be wasted in an attempt to set up categories within a classification which are so carefully and finely drawn up as to be unassailable on logical grounds. In fact, it is questionable whether any classification of revenue measures now in use can be constructed which is not open to criticism in terms of hair-line distinctions. For in practice measures which originally were distinct tend to borrow techniques from one another, and the tireless seeking after new revenues tends to produce measures which straddle conventional categorical boundaries. We shall here use the broader categories of revenues, recognizing that although these categories are distinct from one another in major characteristics, the lines of demarcation cannot be followed rigidly for all characteristics.

The four classes of revenue receipts are:

1. Grants and gifts
2. Administrative revenues
3. Commercial revenues
4. Taxes

1. *Grants and Gifts* We have earlier (Chapter 3) discussed the growth of grants-in-aid, by which one government provides financial assistance to another, usually in the performance of a specified function in a specified manner. Educational and highway grants have long been made by state governments to localities. The federal government has for a long time made grants to state governments for highway construction and maintenance, and for vocational education. Many state universities were originally established with the assistance of grants of land by the federal government.

Grants are seldom made from one government to another for general and unspecified purposes. At present the only grants of this type are relatively minor ones made by states to their localities. An historical curiosity was the federal grant to the states for undesignated purposes in 1836. The revenues from sales of public lands and from the customs duties had been so great that by 1836 the federal debt had been completely retired and embarrassing surpluses were piling up in the Treasury. It did not appear feasible to reduce those revenues. The surplus of approximately $28,000,000 was therefore distributed to the states for use by them in any way they saw fit. Although subsequent similar distributions had been anticipated, the financial difficulties of 1837 again created deficit and debt, and no such embarrassing surplus has since reappeared.

Federal grants to the states for specified purposes were greatly increased both extensively and intensively during the nineteen-thirties. Under PWA a large total of grants was made from the federal government directly to local governments to assist in the financing of local public works projects. State grants to local governments have not been markedly broadened to support new functions, the recent increases in the total of such grants resulting largely from increases in amounts granted for the established functions of high-

ways and primary and secondary education. Exceptions have been temporary grants for relief and permanent grants for old-age assistance, the latter in a few instances being administered by localities.

Grants-in-aid are of course cost payments of the grantor government and revenue receipts to the grantee, since no obligation to repay is established. This is true regardless of the fact that the grants are typically made for specified purposes.

Gifts are voluntary contributions from non-governmental donors, generally for specified purposes. Such contributions are likely to increase out of the fullness of patriotic fervor during war,[1] but even in normal times similar contributions are received from interested, grateful, or conscience-stricken persons. The total of gifts (as distinguished from grants) is never significant in amount.

Grants and gifts as a category of receipts are characterized by their voluntary nature, and by the absence of any expectation of direct benefit to the donor. In the case of grants the donor government gives financial aid in the performance of a governmental function at another level. The grant is made by the donor government in preference to direct performance of the function either because of constitutional limitations or because the grantee government is the logical administrative agency. Private gifts are also purely voluntary and provide no direct benefit to the donor except personal satisfaction in promotion of desirable activities.

2. *Administrative Revenues* Those receipts placed in the category of administrative revenues include fees, licenses fines, forfeitures, escheats, and special assessments. They are characterized by more or less free choice on the part of the payer as to whether or not he will pay, and more or less direct benefit (or penalty) conferred upon him. The amount of the payment does not necessarily, however, bear close relation either to the value of the benefit or the cost of conferring that benefit. A further and peculiar characteristic of administrative revenues is that they generally arise as a by-product

[1] Between 1942 and 1945 the federal Treasury accepted donations of money totaling over $6 million, in addition to several millions of dollars worth of materials and equipment, mostly for recreational use by servicemen. (*Annual Report of the Secretary of the Treasury*, 1945. pp. 107, 108.)

of the administration of a control function of government—hence "administrative revenues."

As examples demonstrating the above characteristics of administrative revenues, let us consider incorporation fees, registration of motor vehicles, barbers' licenses, and permits to operate automobiles. In the case of each, the individual is not exactly coerced into payment. But if he wishes to incorporate a business, use an automobile, or work as a barber, he must pay the necessary fees. The nature of the benefit conferred upon the fee-payer is to be found in the legal and practical advantages of incorporation over other forms of organization, the ability to operate his automobile under a system in which both the vehicle and the driver must meet certain standards of safety, and the advantage to the barber of maintaining certain standards in his profession. In none of these examples, however, is there any real attempt to equate the amount of the fee to the value of the benefit. There is more nearly an equation between the fee paid and the pro-rata direct cost of administering the regulation, though even this equation is frequently disregarded.[2]

We shall have occasion to discuss administrative revenues more fully later in this chapter. Their distinguishing characteristics are (or originally were) more or less voluntary payment occasioned by the conferring of a privilege or the performance of a regulatory function.

3. *Commercial Revenues* The revenues which we call "commercial" are received in the form of prices paid for government-produced commodities and services. They include payments for postage, tolls, interest on funds borrowed from government credit

[2] When fees are used for purposes of outright restriction, as in the cases of excessive license fees for permits to sell oleomargarine or unconscionably high registration fees for motor trucks, the objective is to discourage competition, and neither benefit nor cost of administration is the controlling factor. In such cases the principal beneficiaries are not the fee-payers. This is an obvious case of using a revenue measure for control purposes. An important exception of a different type is use of an administrative revenue measure as a tax. Automobile registration fees are a case in point; here the trend has been toward raising revenues by registration fees which are far in excess of requirements (in terms of cost or value of the *regulatory* function), these surplus revenues to be used for highway construction. In this case there is little if any distinction between the objectives of the registration *fee* and the gasoline *tax*.

corporations, tuition to public educational institutions, prices paid for liquor in government stores, surplus war materials, electricity distributed by publicly owned utilities, and the like. The characteristics which distinguish commercial revenues from those in other categories are: direct receipt of a commodity or service in return for payment, and adjustment of the amount of payment at least roughly to cost (or benefit).

We must recognize that there is not always an equation of price of a government-produced good with average or marginal cost of production. General social policy may conflict with business policy, as in the case where postage rates or subway fares do not cover costs. In such instances it is usually desired that the service—for social reasons—be more widely available to the public than would be possible if price were equal to cost. In other instances government monopolies in the distribution of certain goods are established largely to make monopoly profit which can be covered into the general funds. The French tobacco monopoly is an example of this; state liquor stores fit into this category also, although in this field monopoly operation for purposes of control may be as important as the prospect of profit.

Government may enter into the production and/or sale of commodities and services for several reasons. In some cases private enterprise will not or cannot perform the service (*e.g.*, the postal system or the Panama Canal). In others it is believed that the service can be better or more cheaply furnished by government (*e.g.* production and distribution of electricity). In still other cases government may find resources or goods on its hands which ought to be used by the public (*e.g.*, surplus war products or electric current as a by-product of flood and erosion control and of navigation). We shall study government industrial operations more fully in the following chapter. For the present it is important to note that the commercial revenues are similar in nature to prices paid to private producers of goods and services.

4. *Taxes* Taxes are compulsory payments to government without expectation of direct return in benefit to the taxpayer. We should probably say "more or less" compulsory payments, since the degree of coercion varies with different taxes. A poll tax is paid

simply because the taxpayer has reached taxable age. Income tax can be avoided only by failure to receive taxable income; property taxes can be avoided only by not owning taxable property; taxes on purchase of a particular commodity can be avoided only by refraining from purchase of taxed goods within the taxed area. Although some choice appears to exist, by and large the exercise of choice is not feasible and we conclude that for practical purposes taxes are coercive.

And although we say that taxes are by nature contributions to the *general* funds of government and not for specific benefit of the taxpayers, we have seen something of the growth of the tendency to earmark particular tax revenues for particular expenditures which benefit the payers of the tax. The major taxes still conform to the strict definition. Federal income tax receipts are covered into the general funds and allocated to objects of expenditure by appropriation; property and business taxes are treated similarly by the states, as are property taxes by local governments.

In summary, the characteristics of the four categories of public revenues may be compared as in the chart below.

REVENUE CATEGORY	EXTENT OF COERCION IN IMPOSITION	SPECIFIC BENEFIT GRANTED IN RETURN	PAYMENT COVERS COST OR VALUE OF BENEFIT
Grants and Gifts	(—)	(—)	(—)
Administrative Revenues	(∓)	(+)	(+)
Commercial Revenues	(∓)	(+)	(+)
Taxes	(+)	(—)	. . . .

It must be recognized that any classification of a miscellaneous list of revenue measures will defy clear-cut and mutually exclusive categories. The classes discussed above have shown typical characteristics of the several categories. Nothing is to be gained by quarreling over minor exceptions, for it is admitted that any exact classification would require a separate category for each revenue measure.

It is necessary to record the existence of growing pressures for a trend away from taxes and toward administrative revenues and commercial revenues in public finance. There has been a growing tendency to argue that a new tax can be justified only by a showing

of benefit to the payers as a class. Gasoline taxes have shown this tendency to a marked degree. It must be recalled, however, that the functions of government are basically those of promoting general welfare. Measurement of the degree of welfare provided for a given individual through a general function is impossible in most instances. Furthermore, many of the most important governmental functions must provide benefits which accrue primarily to the less-privileged classes in order to raise the level of general welfare. Thus the major part of government revenues must be taken from citizens on a basis other than that of benefits derived from the expenditure. Otherwise government tends to exist more and more as a commercial entity, providing services for those individuals who can pay for them directly.

Table 21 below presents information concerning the relative importance of the categories of revenues in terms of the amounts of revenues produced in 1941.

TABLE 21 Federal, State, and Local Receipts from Texas, Grants, and Other Revenue Categories, 1941 [3]
(*$ millions*)

	FEDERAL	STATE	LOCAL	TOTAL	%
Taxes	$7,818	$4,499	$4,606	$16,923	70.2
Grants-in-aid	——	785	1,794	2,580	10.7
Other	1,618	463	646	4,600[a]	19.1
Total	$9,436	$5,746	$7,045	$34,103[a]	100.0

[a] Includes $1,874 million from municipal utilities and other public-service enterprises not transferred to general funds. This amount is not distributed in the table among the various governments.

It will be noted that commercial and administrative revenues are combined in the table; separation of these revenues is impossible on the basis of existing statistics. The evidence is clear that taxes are by far the most productive of all revenue sources for all governments. For the federal government they constituted approximately 83 per cent of all revenue receipts in 1941; for state and local governments combined they made up 62 per cent of revenue receipts. Grants con-

[3] *Statistical Abstract of the United States*, 1943, p. 288, and *Annual Report of the Secretary of the Treasury*, 1941, pp. 16, 524.

tributed less than one-fifth of combined state and local revenue receipts, while commercial and administrative revenues constituted just under one-fifth of receipts of all governments. The "other" revenues of the federal government are principally commercial revenues, of which those of federal credit agencies and the post office are the major items. The "other" revenues of states and cities in Table 21 are principally administrative revenues.

It is presumed that grants and gifts require no further specific discussion. Description and analysis of administrative revenues will occupy the remainder of this chapter, while the chapter following is devoted to a study of government commercial enterprises. Taxes will be studied in a series of individual chapters dealing with important tax measures.

ADMINISTRATIVE REVENUES

H. C. Adams [4] has given a useful description of a fee as a charge imposed on the occasion of a special service, the service arising incidentally in connection with some comprehensive governmental function. This description may be applied broadly to include all of those revenues which we have classed as administrative revenues. Government performs certain general functions for society, such as the protection of persons and property, the establishment of basic rules for trade, and certain fundamental facilities for the comfort and convenience of society.

In the performance of these general functions various occasions arise when government comes in contact with particular individuals, and these occasions are utilized to collect contributions. Sometimes the general regulatory function requires the issuance of permits to perform certain acts. At other times the administration of regulations requires punishment for infraction of rules. On occasion particular benefit, within the general benefit conferred upon society, is bestowed upon individuals. The contributions collected upon these occasions of contact with individuals may be justified on grounds of benefit, of cost, or of penalty. Practically, however, the amount of the contribution is seldom measured with any degree of accuracy by the justification.

[4] *The Science of Finance*, New York, Holt, 1906, p. 226.

A few examples may clarify the picture. Conduct of foreign relations is a general function of government. In the performance of this function the issuance of passports is an essential detail. The receiver of a passport pays a fee on its issuance; the amount of the fee paid bears little or no relation to the benefit to the traveler or the cost of issuance. For the protection of society those who practice medicine must meet certain standards of competence. A qualified physician is given a permit to practice medicine; the fee which he pays bears little or no relation in its amount either to the benefit so conferred upon him or to the cost of issuance of the permit. The health and convenience of residents of a municipality may require a sewage system. The owner of a new house will be charged for connection with the sewer, the amount of payment measuring only very roughly the benefit or cost of the connection. Finally a motorist who parks his automobile overtime on a city street may be required to pay a fine which measures neither benefit to him nor his pro-rata cost of maintaining traffic control.

The examples demonstrate that administrative revenues are collected when government comes in contact with particular individuals in the course of administering its general functions. There is little fundamental reason why special charges should be imposed when these contacts occur. They do, however, provide occasions for revenue collections, and government seizes upon these opportunities for making additions to its revenues. Charges for permits bear no relation whatever to the individual permittee's ability to pay; they are flat sums charged to all who seek them. And charges for permits to undertake specified activities bear little or no relation to one another. By and large we may say that charges are fixed with a view to providing adequate revenue for a special administrative commission. In such cases the amount charged is determined by what the traffic will bear without undue exclusion from the profession or activity and without generating too much objection from permittees. In other cases exclusion is a primary objective, as in the case of excessive charges for permits to sell oleomargarine in some states, and excessive registration fees for motor trucks in others. There may be pressure by a profession to impose payments for permits which are high enough to discourage new entrants into the profession,

though there are generally better and more direct methods which would accomplish this purpose more effectively. In still other cases excessive charges for permits are imposed in order to provide a maximum of net revenue to government. Motor vehicle registration fees in many states reflect this objective.

Most administrative revenues are dedicated to expenditure for particular purposes. The administrative branch of government which collects the charges usually has first claim on the receipts. In some cases a share of motor vehicle operators' license collections is paid directly to the county official issuing the license, who thereby works on a "commission" basis. Very frequently an administrative commission has earmarked for its use all collections from the issuance of permits and licenses by the commission. This is generally true of motor vehicle fees (registration fees, drivers' licenses, dealers' permits, etc.) which are dedicated to the highway fund, and of collections by special boards and commissions issuing permits to engage in trade or professions (*i.e.*, boards issuing permits to barbers, cosmeticians, embalmers, doctors, dealers in oleomargarine, etc.).

The result of such dedication may well be to provide small and specialized agencies of government with funds far in excess of their requirements. The favored agency may be pressed to find opportunities to spend its income. To end the fiscal year with a surplus might well cause real trouble, either in pressure to transfer surplus to the general fund, which would raise objections by fee-payers to "diversion," or in pressure to reduce the amount of annual payment. The consequence of dedicating receipts to the particular use of the agency collecting them is practically to remove that agency from effective budgetary control.

Fees, Licenses, and Permits We shall attempt no distinction among these terms, for there is no real distinction. We speak of "filing fees," "operators' licenses," and "permits to sell oleomargarine." They all give rise to government revenues of essentially the same sort; the terms used are likely to be originally accidental and this original usage persists. They all arise out of a government grant of permission to be or do something. In general, the permission is required because a general governmental function could not be adequately performed without the sort of control implied in the grant

of permission. But although a system of permits must be utilized, it does not necessarily follow that the permittee should be required to pay for the permit. The imposition of a fee as a prerequisite to receipt of a permit does not, in general, improve the system of administration by permit. The fee system of financing government is, as it has grown up, largely an opportunistic system of collecting funds were possibilities present themselves. Why should automobile owners have to pay a license fee before they can use the highway, while no such permit is required of pedestrians using public sidewalks, or persons using public parks? Why should barbers and tree surgeons be required to operate under permit while teachers in private schools do not?

The fee system has, in some instances, been pushed far beyond any logical reason for it. In Kansas, for example, operators of motor vehicles are required to purchase a driver's license every two years. No examination is required of drivers prior to receiving their original permits to drive. By paying forty cents each two years a person is permitted to drive his automobile. A large share of the payment is pocketed by the county official issuing the license. And the person who is caught driving without a license is subject to fine. It is impossible to see how the permit system can improve the administration of the safety function. The license is required to collect funds and pay administrators of the system. But the system is simply one of issuing licenses. A driver is penalized for failure to have a license whose only function is to create an occasion for paying a fee to the issuer of the license. One is reminded of the farm tenant who explained to his landlord that a certain wooden tub was kept in the farm yard "to keep water in so it won't leak."

A much greater danger in extension of the fee system is in its tendency to justify payments to government in terms of specific benefit to the payer. The obverse of this tendency is to justify payments to government only where a specific benefit is conferred. Such an emphasis obviously runs counter to the ideal of contribution to government on the basis of ability to pay. And it encourages departure from the concept of government as promoter of the general welfare and movement toward government as a dispenser of benefits to particular individuals and groups at a price.

Fines and Forfeitures Fines are imposed as pecuniary penalties for infractions of law. It is obvious that they bear no real relation to the cost of administering the protection or control functions of government. They are presumably related in a loose sort of way to the severity of the infraction, though fines whose amounts are fixed and uniform weigh with varying severity upon persons with different incomes. Forfeitures of bail or of bond are similar to fines in that they are penalties for failure to appear in court, to complete contracts as stipulated, or to safeguard valuable assets. Fines and forfeitures are quantitatively unimportant as revenue measures, they are almost entirely unpredictable, and they are—in the revenue sense—pure by-products of the administration of larger governmental functions.

Escheats Escheat refers principally to the claim of the state to the property of persons who die without legal heirs. It is the duty of the state to guarantee distribution of the estates of deceased persons to heirs specified in wills, or in the absence of a will to persons declared to be lawful heirs by common or statute law. If no such heirs exist, the property reverts to the state. Escheat may include governmental rights to unclaimed bank deposits or property of dissolved educational corporations. As a source of revenue escheat is obviously of no great importance, and raises few problems of fiscal control.

Special Assessments[5] Certain public improvements, such as the construction of streets and sewers, confer specific benefit upon particular property owners in addition to their general community benefits. Special assessments are charges imposed upon property benefited by such improvements, the amount of the charge being determined by pro rata cost or pro rata benefit. Special assessments are thus similar in many respects to prices, since property owners are buying improvements from local government. On the other hand, there is a large element of general benefit to the community, and the scale on which the improvement is undertaken must conform to community plan as well as to the desires of peculiarly

[5] For a detailed study of special assessments the reader is referred to A. R. Burnstan, *Special Assessment Procedure*, Special Report No. 1 of the New York State Tax Commission, Albany, 1929.

benefited property owners. We are thus justified in classing special assessments as administrative revenues rather than as commercial revenues. The contact with the individual property owner occurs in connection with the performance of the general function of urban physical development, and special revenue impositions upon individuals justifiably arise out of these contacts.

The combination of general and specific benefit in those improvements which give rise to special assessments is not peculiar only to them. As we have seen, payments for permits of all kinds involve the same combination. Nevertheless, special assessments present peculiar problems because the payments required from individuals are commonly large in amount. This being the case, property owners are entitled to a voice in determination of what projects are to be undertaken, and how elaborate the improvements will be. Furthermore, the system of payment must be made as convenient to the individual payer as is possible. The project is undertaken by government, and the financial obligations to contractors are assumed by government.

Recognizing that orderly and planned physical development of the community is the paramount interest, what voice should property owners have in initiating improvement projects? Procedures vary among the states which impose procedural regulations upon their local governments, and among local governments when no such state regulation is imposed. In practice, projects are usually proposed by government, and property owners are given some power of veto after public hearing. Since the interests of government are paramount, however, the veto cannot be exercised except by a substantial majority of property owners. The larger the share of cost borne by government, the greater should be the power of government to override the veto. Although in practice a project is less frequently proposed by property owners, this right is generally provided. When property owners recommend projects they should be, and generally are, empowered to state the upper limit of cost which they are willing to bear. If a respectable majority of property owners request an improvement, and are willing to assume substantially the whole cost, the veto power of government is properly limited, and will normally be exercised only when the project is out of line with city

plans or when the city's interest would require performance on a more elaborate standard than contemplated by property owners. For it is possible that a street or sewer which would be adequate to the needs of existing residents in a new development would be quite inadequate from government's point of view which must give consideration to the needs of future expansion. In such a case the total cost of the improvement on a scale desired by government would be considerably in excess of the cost which the petitioners are willing to assume. As a general rule in matters of conflict the authority of government must be stronger than that of petitioners. This is not to imply that conflicts normally develop, for typically arrangements for special improvements are completed by cooperation between both interested parties in the accomplishment of projects desired by both.

Determination of the amount to be assessed against individual property owners presents another set of problems. Most state laws allow local governments to assess against benefited property the whole cost of the improvement, including, in addition to actual construction cost, the costs of land acquired and of engineering and supervision by city departments. In some states local governments are by law limited in assessment to only a portion of total cost of property improvements (*e.g.*, one-half or two-thirds). This is statutory recognition of the element of general welfare in such improvements, requiring government to bear its share of cost. However, regardless of legal right, the common practice is for government to assume a share of the cost. The amount of assessment permitted is everywhere subject to the overriding limitation that no property owner shall be required to contribute an amount in excess of the value added to his property by the improvement. This obviously raises difficult problems of measurement, both of the amount of property value increase and the proportion of the appreciation which should be attributed to the improvement in question as distinguished from other appreciating influences.

Within the limits of apportioned cost or increment to property value the amount actually assessed is determined by local practice. If the improvement is in a low-income district the assessment of substantially the whole cost or value appreciation against parcels of

property may meet with inability to pay and consequent transfer of property.[6] The special assessment practices of government must take this factor into account; it will determine the extent to which government participates in cost, and may result in assumption by government of varying proportions of cost of different types of improvements and in different sections of the city.

The substantial assessments against property for improvements must in the normal case be spread over a period of years. It is common practice for local governments to borrow funds to pay contractors by the issuance of special assessment bonds. These bonds are guaranteed by government, but special assessment revenues are dedicated to their retirement. In this way, government advances funds for the improvement, and property owners are allowed to pay off the obligation gradually. Special assessment borrowing on an individual project basis is probably most desirable for most projects, though some larger cities have borrowed to create a revolving fund from which the costs of substantially all such projects are met and into which special assessments for all projects are paid.[7]

CONCLUSIONS WITH RESPECT TO ADMINISTRATIVE REVENUES

The administrative revenues constitute a miscellaneous collection of usually small revenue streams. These revenues arise in connection with the performance of general administrative functions. When, during this performance, specific contact with the individual occurs, such as in the issuance of permits to engage in regulated activity, the imposition of penalties for failure to abide by laws or agreements, or the construction of improvements beneficial to specific items of private property, it is common for government to seize upon the occasion to exact a revenue. With the exception of fines and special assessments, it is difficult to see how cost, benefit, or

[6] The difficulty arises out of inability to raise the necessary amount of cash when payment is due. Although the assessment is limited to the appreciation in value, that appreciation can be realized in cash only by sale of the property. Transfers of ownership for tax reasons are to be avoided whenever possible, particularly in the case of residential property.

[7] See Burnstan, *op. cit.*, pp. 77–83, for discussion of these and other plans for financing special improvements.

the improvement of regulation justifies a charge. Actually, such charges are badly adjusted to ability to pay and therefore hardly recommend themselves on grounds of acceptable revenue theory. In addition the automatic earmarking of such revenue receipts to their administrative departments tends to establish limits to expenditure quite out of step with acceptable budget procedure.

When these shortcomings are added to relative inelasticity of such revenues,[8] and thus the inability to adjust them to current needs, we are presented with a fairly complete logical condemnation of the fee system. Logical or not, however, the fee system is firmly rooted in governmental practice and thoroughly established in the fiscal experience of the public. In view of the public acceptance and the relative unimportance of fees, licenses, and permits in the general revenue picture, it is difficult to become violently exercised over their continuance. But further encroachment upon the field of taxes is a different matter, and should be vigorously opposed.

What we have said above regarding the fee system is not applicable to the other types of administrative revenues—fines, forfeitures, escheats, and special assessments. The fine and the forfeit are based upon other than revenue considerations, and so long as those responsible for the punishment of infractions regard them as satisfactory instruments there are slim grounds indeed for the student of public finance to recommend their qualification or abandonment. Escheats place the state in a position of residual legatee, standing at the end of the line when the property of deceased or lost persons is finally distributed. Under existing safeguards it is impossible to designate anyone who has as good a claim to this position as has the state. In regard to special assessments, there are clear grounds for upholding the principle that property owners contribute their fair share of the cost of improvements which confer financial benefits upon specific parcels of property. And the special assessment frequently serves as a useful preventive to excessive demands for semi-public improvements. What constitutes a fair share of the cost to be collected

[8] Inelastic because of (a) difficulty of forecasting revenue results with a change in fee rates, and (b) the fact that the amount of the fee is determined on grounds other than revenue considerations.

from individuals is a problem for administrative determination, though the fact should not be ignored that such improvements are not solely in the individual interest but to a considerable (and varying) degree in the public interest. The public's share presents a logical claim upon the general revenues.

The reader will recognize several reasons why the administrative revenues do not lend themselves to counter-cycle adjustment. Being minor in amount, variations in rates during the different phases of the business cycle can have little effect upon the levels of consumption and investment, and therefore on the level of income. Further, since there is less coercion in their application than in the case of taxes, those subject to the application of administrative revenues are presented with a respectable area of voluntary counter-cycle operation. Finally, the very nature of most such revenues implies that counter-cycle manipulation would vitiate other and more important considerations. Some exception to these conclusions should, however, be stated with respect to special assessments. Programs of public improvements in this class do offer real possibilities for counter-cycle scheduling. (This is an expenditure and not a revenue consideration.) And since to special assessment payers such levies are likely to be of major proportions, some elasticity in the schedule of payment should be provided in order to take account of fluctuations in income caused by cyclical influences. This would not only affect locally the level of expenditure for consumption and investment, but would help to avoid tax delinquency problems which have so frequently embarrassed local governments in periods of underemployment and low community income.[9]

[9] Such a program would call for postponing during depression special assessment payments on projects already completed, and probably increasing payments during prosperous periods. Such action would be difficult under present financing procedures whereby issues of special assessment bonds advance the funds and are to be repaid from annual special assessment collections. That is, it would be difficult as long as segregation of special assessment finance is rigid. Were such elasticity provided, it would imply willingness to refund matured special assessment bonds into general treasury issues in order to stretch the life of the debt over the longer period of collections required by the postponement of revenue collections.

RECOMMENDED READINGS

Additional reading in the classification of revenues is likely to be of little profit. Samples of classification may be found in Lutz, H. L., *Public Finance,* Fourth edition, N. Y., Appleton-Century, 1947, Chapter 10.

Grants and gifts:

See recommendation under "Grants-in-aid," Chapter 3.

Administrative revenues:

Shultz, W. J., *American Public Finance,* Third edition, N. Y., Prentice-Hall, 1942, pp. 606–625.

A textbook discussion.

CHAPTER 11

COMMERCIAL REVENUES: GOVERNMENT BUSINESS ENTERPRISES

NATURE OF COMMERCIAL REVENUES

The commercial revenues of governments are received in the form of prices paid by the public for goods and services produced by government-owned enterprises. These government commercial enterprises exist for the production of goods and services which provide specific benefit to users. The goods providing specific benefit are not typically by-products of the performance of a general governmental function, as in the case of administrative revenues, but are the primary products whose production justifies the existence of the governmental agency. The goods produced for sale by government may be and usually are "necessary" items of public consumption. As such, the alternative to sale at a price might be to finance production out of general revenues (taxes), and to distribute the goods without relation to ability to pay for them. The decision to sell rather than to donate these goods results from the ability to identify almost completely the benefits they confer with the individuals who use them. Where the benefits are preponderantly individual there is strong argument for making their production self-supporting; *i.e.*, if the individuals using the goods will not pay their cost there is strong *prima facie* argument against their production. From the selling point of view there are important "commercial" aspects to production and sale, and thus a strong tendency to apply commercial practices in this commercial segment of government.

From the buyer's point of view, government-produced goods are

like privately produced goods. He can take them or leave them, to exactly the same degree that he can take or leave goods in the market place of the private economy. There is nothing inherent in municipally produced electric power to distinguish if from the same good when produced by a private corporation. State-sold liquor is the same as privately sold liquor. The buyer reacts to these government-produced goods through the typical rough market place calculus which relates utility of the good to its price. If the former is at least equal to the latter he will buy; if not he will not buy. Thus, specific benefit to the buyer is clearly recognized by him and he is willing to pay a reasonable price for it.

A commercial revenue is thus centrally characterized as a *quid pro quo.* It does not follow, however, that government price policy is *necessarily* identical with that of private industry. For government may exclude private enterprise from a given commercial field and operate the business as a monopoly, with the principal intent of receiving monopoly profit.[1] Or government may operate a business under conscious policy of selling at less than cost in order to encourage wide utilization of the product. We shall have more to say about government price policy later in this chapter. The important point to note is that government prices differ from administrative revenues and from taxes on grounds of more complete identification of the benefit conferred with the amount paid.

REASONS FOR GOVERNMENT OPERATION OF COMMERCIAL ENTERPRISES

It is important to recognize that purely revenue considerations are very infrequently of major importance in explaining why goods are sold by government rather than by private business. The reasons for government commercial enterprises are almost always extra-fiscal. The most usual reasons are related to promotion of public welfare—to provide goods which private industry could not or would not provide, to provide these goods more cheaply to

[1] The French tobacco monopoly is a case in point, as are state monopolies in the retail distribution of liquor in the United States. In the case of the latter, however, the monopoly profit objective may be subordinate to the desire for effective control through monopoly operation.

individual users than they could or would be provided by private industry, or to accomplish needed regulation of production and distribution of certain goods. Fundamentally, therefore, public ownership and operation of commercial enterprises normally arise out of the inability of the private profit motive to promote adequately the public good. This means that the interests of private owners frequently collide with the interests of consumers, and in such instances government takes over production in the interest of consumers.

Ineffectiveness of Regulation in the Public Interest

Government regulation of public utility enterprises proceeds from requirements inherent in the nature of their production and distribution that they be local monopolies, from the fact that the goods and services they sell are important elements of the standard of living, and that their operation implies grants of public privilege. Since their services are important in an unusual degree their monopolistic position is fraught with danger to consumers if they are left unregulated. Consequently elaborate systems of controlling rates and practices have developed. In many localities, however, and for many reasons the discussion of which lies outside our scope, regulation has proved an unsatisfactory safeguard of public interest. In such circumstances pressure for public ownership of the means of production and distribution of the service has been frequent, resulting in substitution of public ownership for public regulation.

Public grievances against private utility concerns have commonly centered around price; overall rates have been thought to be excessive, rate schedules have frequently imposed relatively heavy burdens on small users, and profits have been considered more than ample. In some cases, however, public ownership has been recommended to improve service. And particularly in the electric utility field integration into large systems and the related complications of corporate ownership have created confusion in the public mind which is conducive to suspicion that the interests of owners are by no means identical with those of consumers.

It is of real significance that local government has entered the business field precisely in those areas where public regulation has long existed—*i.e.*, electric power, water supply, and to a lesser degree

illuminating gas and street railway transportation. The conclusion must be that ownership has been thought preferable to administrative regulation of private concerns in promotion of the public interest. In industries where monopoly is "natural," improvement of regulation has frequently called for public ownership in place of private ownership. Where monopoly is not "natural," government competition with private enterprise has at times been recommended. The use of TVA as a "yardstick" for the measurement of the fairness of private electric rates is a case in point. The federal government's Inland Waterways Corporation operates barges on inland waterways in competition with private concerns, a purpose of which is to establish and maintain reasonable competitive rates. The continuance of depression-born federal credit corporations can be explained partially as a government attempt to force down the price of loans from private financial institutions, an attempt which has been markedly successful. In 1874 when Congress was searching for techniques of maintaining low competitive rates for railroad transportation, its Windom Committee recommended that government purchase and operate its own competing lines. No such plan was carried out, partly because severe railroad competition soon accomplished a marked reduction in rates. With the exceptions noted, government industry is principally monopolistic industry.

Unwillingness of Private Capital to Assume Risk A second aspect of the conflict between consumer interest and the profit motive is the unwillingness of private capital to venture into fields of production where return is either questionable or long delayed. The failure of private capital to complete the Panama Canal was due to inability to gather together sufficient capital to carry the project to completion in view of the uncertainty as to its final cost and its ability to earn a return adequate to compensate investors. Government, however, could afford to gamble a part of its larger resources on a project which promised compensation in national security and cheaper transportation in addition to some financial return. In view of its regard for returns in terms of general welfare, the risk of inadequate financial returns was of less consequence to government than to private capital.

Many of the federal lending corporations set up during the de-

pression years of the thirties were created to make loans which banks and other credit institutions regarded as too risky. In depression the banks established high requirements for borrowers of mortgage capital and for business borrowers who needed funds because their assets were largely frozen. And if borrowers could qualify for loans, the risk involved made interest rates high. Government's entrance into the lending field at comparatively low interest was possible as a part of its recovery program, a program which private capital could not be expected to undertake.

The function of promoting rural electrification was undertaken by the federal government in the middle thirties partly as a recovery project to stimulate activity in construction and in the purchase of electrical supplies and equipment, partly to reduce labor costs on farms, and partly to provide to rural dwellers comforts of living which had long been available to urban residents. The cost of distribution of electric power to farms in less populous areas had been prohibitive under private operation principally because of the heavy investment required per customer in distribution lines. Government undertook the project through locally organized cooperatives and through public bodies, lending long-term funds at low interest for construction of lines. The program has made electric power available at relatively low cost to millions of farms. Here is a case where services were made available by government on terms which made electrification of less populous areas possible, and this represents government entrance into a commercial field (loans) which to a considerable extent private capital was unwilling to enter.

The relative venturesomeness of government capital accounts for the expansion of government commercial enterprises in various fields. In many instances the experiments have proved so successful as to create later friction between private capital and government. For once governmental enterprises were established the investments were demonstrated to have been less risky than was anticipated. Two recent examples demonstrate this. One notes growing expressions of feeling among the banks that "government credit agencies should be taken out of the banking field." These agencies entered the field to assume risks which the banks would not assume at all or that they would accept only at prohibitively high interest. The long-

run effect has been to bring about an alteration of conditions in the capital markets; banks are now willing to accept these risks at lower interest after demonstration that the risks of loss are not as great as earlier assumed. The second example is that of rural electrification. The success of the Rural Electrification Administration has led to fear on the part of the private electric utilities that this area of expansion will be permanently closed to them. They have therefore proposed an agreement under which certain areas would be developed by REA and certain areas by the private utilities. REA has refused to enter into such an agreement, on grounds of danger that only those sections of the private territory which can afford to pay high prices will be developed by the private concerns, leaving the sparsely settled and low-income areas unserved in a preserve from which government is excluded. Such competition is productive of recriminations and bad feeling; it is evident that government can (and should) withdraw only on the assurance that private capital is in fact willing to accept the risks necessary to provide service on the desired scale, and not simply "skim the cream" from the market.

If further examples are required to demonstrate that areas exist where private capital is unwilling to accept risks at necessarily low price, government insurance upon the lives of soldiers and sailors in wartime is instructive. Private insurers could not have shouldered these extraordinary risks except at extraordinary rates Yet the rates must be low if substantially complete coverage on a voluntary basis is to be attained. With general revenues acting as a reserve for contingencies, government accomplished broad coverage at low rates, and the broader the coverage the lower the risk per insured individual.

Conflict between the private urge to exploit for profit and the public interest to conserve resources has at times justified public ownership, with or without public operation. The profit urge is not always consistent with the national security or the orderly exploitation of national resources. Retention by government of title to forests, selling timber to private producers, has proved far more successful in terms of the objective of conservation than has sale of timber lands. Likewise, for reasons of national security government has retained control over certain petroleum and nitrate deposits, on the

principle that if left free for private exploitation the more productive deposits would be exploited first for commercial purposes and would thus be unavailable in a situation of national emergency.

The threat of public regulation, by competition or otherwise, may create an element of risk discouraging private capital investment in useful types of production. Even assuming that private capital could make the necessary investment to operate a nation-wide postal system, recognition of government's interest in maintaining low postal rates would be a strong deterrent. For the postal system is bound up with the whole governmental function of promoting the dissemination of intelligence, and must therefore in the public interest maintain rates which will expand the service on the broadest feasible base. Private operation would thus inevitably be subjected to severe rate regulation, the prospect of which would almost certainly make private investment on the required scale unattractive. Likelihood of governmental competition effectively checks private investment in commercial parks and playgrounds, toll bridges, and similar projects. Generally speaking, where the general benefits to be derived from an enterprise are large in relation to the benefits to particular individuals, there is probability of governmental regulation or competition which so dampens profit anticipations as to discourage private investment.

Sales of Government Surplus Goods Entrance of government into certain commercial fields can be accounted for as attempts to dispose of useful goods through sale rather than to hoard them or destroy them. Sales of public lands during the nineteenth century are an important example. The nation came into possession of huge areas of useful lands. These lands could not, under the political and economic philosophies obtaining, be worked by government or worked by lessees for government. The only possibility was transfer to private ownership. Land was sold to settlers (and speculators) at low prices and given as subsidies to railroads. It could not feasibly have been given away, because this system would not have encouraged the type of settlement desired. Furthermore, it was reasonable that those who became landowners should pay at least a nominal sum for it, and that the proceeds be used to retire public debt. In this way the particular beneficiaries of land policy

would pay for their benefit, while taxpayers in general would be benefited by debt reduction from the proceeds of sale of public property.[2]

Government may be required, out of considerations of economy or promotion of welfare, to enter competitive business fields in the sale of by-products of its other non-commercial functions. For example, TVA was originally planned as a flood control, erosion control, and navigation project. Accomplishment of these objectives required a system of dams in the Tennessee Valley. With relatively small additional investment, power could be generated, part of which was useful in development of government-owned nitrate deposits, but most of which was available for sale to the public.[3] It would obviously be uneconomic not to make cheap power available under the circumstances, just as it would be uneconomic to destroy surplus war products at the war's end solely to avoid competition with private enterprise. If the goods are useful and available in a period or area of need, they should be put to use.[4]

Our analysis concludes that government may, and sometimes does, enter into business fields primarily to make profit for itself. But this motive has not been strong in the establishment of most public industry. The major reasons may be classed under the general

[2] By 1836 the federal debt had been completely retired, owing in no small measure to receipts from sales of public lands. Subsequent to that time, proceeds of sales of public lands were frequently allocated to debt retirement. It has been estimated, however, that there was no net revenue received from land sales, since total receipts from sales were less than calculated cost of original government purchase and administration of the land policy.

[3] Much difference of opinion has developed over the order in which these various objectives appeared. TVA insists that power production is a by-product of flood control, erosion control, and navigation facilities. The private utilities insist that production of cheap power was the paramount objective, clothed in the respectable raiment of general welfare in terms of flood control, etc. If, as appears true, power is the by-product and not the principal product, and the costs of its production are calculated simply as the additional costs incurred for its production, rates which will cover these additional costs cannot accurately be used as a "yardstick" to measure the reasonableness of rates charged by private concerns whose primary and only product is power.

[4] It happens that TVA power historically is a by-product. But even if it were not, and government were to develop cheap power for no other reason than to utilize natural resources for the public good, its entrance into a competitive field could be justified in circumstances under which private capital was unwilling or unable to exploit those resources in the public interest.

heading of conflict between the profit motive and the public interest. This conflict may produce government ownership in place of private ownership because of unsatisfactory public regulation of prices, profits, or service. Or it may produce government ownership and operation because of unwillingness of private capital to engage in production of desired things. Finally government may more or less accidentally enter a commercial field because it finds in its possession goods and services which society wants and for which individuals should pay because their benefits are largely individual and the society should not be required to furnish them gratis.

BUSINESS ENTERPRISES OF THE FEDERAL GOVERNMENT

The area in which federal governmental business enterprises operate is interstate or international. Where government business is of a character which requires uniform operations within the various states, federal administration is almost inevitable. (The reader should not interpret the statements above to mean that all interstate and international business is or must be carried on by the federal government; rather, *governmental* business enterprises whose operations are interstate or international require management by that government whose powers are coextensive with the commercial area involved.)

The postal system and the Panama Canal are the two federal business enterprises which most frequently come to mind. This is largely because they are the oldest in continuous service. The former enjoys the status of a federal department, while the latter is under the cognizance of the Secretary of War. Both, although they sell services at a price, contain very large elements of general benefit and thus reflect the meager extent to which earlier government philosophy justified entrance into commercial operations.

Marked expansion of federal commercial enterprises took place after 1931, and again during World War II. During depression many federal corporations and "administrations" grew up to act as lenders of cheaply-borrowed government funds to individuals and businesses requiring liquid funds at attractive rates in order to check further deflation, or to guarantee such loans when made by private financial institutions. Loan agencies and loan-guaranteeing agencies were set

up to assist in the financing of agriculture, electric power cooperatives, imports and exports, housing, banks, railroads, and many other business fields. The commercial enterprises of the federal government which developed during the thirties overshadowed earlier corporations in importance, and thus characterized federal business enterprises as predominantly credit enterprises. During World War II the new business corporations created were given responsibility for promotion of production in many lines, accumulation of reserve supplies, and vital wartime construction. On June 30, 1945, the following government business corporations with assets of over one hundred million dollars each were in operation.[5] Date of origin is given in each case, and the postal system and Panama Canal are excluded.

Under Cognizance of Foreign Economic Administration:
- Export-Import Bank of Washington (1934)
- United States Commercial Company (1942)

Under Cognizance of the Department of Agriculture:
- Banks for Cooperatives[6] (1933)
- Federal Intermediate Credit Banks (1923)
- Federal Land Banks[6] (1916)
- Production Credit Corporations (1933)
- Commodity Credit Corporation (1933)
- Farm Credit Administration (1933)
- Farm Security Administration (1937)
- Federal Farm Mortgage Corporation (1933)
- Rural Electrification Administration (1935)

Under Cognizance of Federal Loan Agency:
- Reconstruction Finance Corporation (1932) and These of its Affiliates:
  - Defense Plant Corporation (1940)
  - Defense Supplies Corporation (1940)
  - Metals Reserve Company (1940)
  - Rubber Reserve Company (1940)
  - War Damage Corporation (1941)

Under Cognizance of National Housing Agency:
- Federal Home Loan Banks[6] (1932)

[5] *Annual Report of the Secretary of the Treasury*, 1945, pp. 645–57.
[6] Capital funds partially furnished from private sources.

Savings and Loan Insurance Corporation (1932)
Home Owners' Loan Corporation (1933)
Federal Public Housing Authority (1941)
Federal Housing Administration (1934)

Independent Agencies:

Federal Works Agency (1939)
Federal Deposit Insurance Corporation[6] (1933)
United States Maritime Commission (1936)
Smaller War Plants Corporation (1942)
Tennessee Valley Authority (1933)
War Shipping Administration (1942)

A longer list of smaller federal corporations and commercial agencies could be presented. The business activities of government extend into many fields, and the amount of business done is impressive. In the fiscal year 1941 postal revenues amounted to slightly over 800 million dollars, Panama Canal receipts were 20 million dollars, and receipts of other federal public service enterprises (almost exclusively credit agencies) were about two-thirds billion dollars. Together these total 1,491 million dollars.[7] In addition, to arrive at a total of commercial revenues for the year we must add the receipts to the Treasury from rents and royalties, mint receipts, interest and dividends, and sales of government property and services. These are estimated at 125 million dollars,[8] and give an approximate total of over one and one-half billion dollars of commercial revenue receipts of the federal government in 1941.[9] This compares with federal tax receipts of almost eight billion dollars in that year.

[6] Capital funds partially furnished from private sources.

[7] U. S. Bureau of Census, *Financing Federal, State, and Local Governments: 1941*, 1942, p. 43.

[8] From *Annual Report of the Secretary of the Treasury*, 1941, pp. 669–78. The figures cannot be taken over directly from the reported figures because of the likelihood of double counting. For instance, interest paid to the Treasury by RFC on RFC bonds held by the Treasury should not be counted as receipts to RFC and again to the Treasury. The items excluded from totals make the miscellaneous receipts as interest subject to estimate. Nevertheless the amount involved is small.

[9] The reader is reminded that these are gross and not net revenues, and are therefore comparable with figures of revenues from taxes, administrative revenues, and grants.

BUSINESS ENTERPRISES OF STATE GOVERNMENTS

Revenues from state-owned and operated public service enterprises amounted to approximately 10 million dollars in 1932, or less than one half of one per cent of total state revenues.[10] In 1942 these revenues had increased to something over four hundred million dollars,[11] which in that year represented approximately 6 per cent of total state revenues. These figures show two facts which require explanation: (1) the extreme unimportance of state enterprises until quite recently, and (2) the striking increase in importance since 1932.

It is not difficult to see why state enterprises were unimportant in earlier years. State government is too far removed from those immediate and local situations which may create governmental enterprise to meet local needs. Since local governments are in effect administrative arms of the state, they tend to assume the responsibility for providing local services, while the function of state government becomes more and more that of encouraging uniformity of practices among local governments. At the same time the scope of state government is not broad enough to embrace the larger regional or national field. The furnishing of goods and services generally requires administration in an area broad enough to be interstate, or in an area narrow enough to be better performed by local government. In short, state boundaries frequently are not identical with market boundaries. The commercial activities of state governments are almost exclusively confined to those intra-state and inter-local enterprises which are auxiliary to the performance of general state functions—*i.e.*, regulation of the liquor traffic or the operation of toll bridges on the state highway system. There are minor instances of ferries, irrigation projects, port facilities, and the like.

The marked increase in state commercial revenues between 1932 and 1942 is accounted for almost entirely by the introduction of alcoholic beverage monopoly systems in sixteen states after repeal

[10] Bureau of the Census, *Financing Federal, State, and Local Governments: 1941*, pp. 44, 46.

[11] From Bureau of the Census, *State Finances*, 1942, pp. 77, 78. The figures are incomplete, as they do not include certain minor public service enterprises.

of the Eighteenth Amendment in 1933. Most states allowed the distribution of alcoholic beverages by private concerns, under stringent regulation and heavy taxation. Those which set up state monopoly systems undoubtedly made their decisions to do so largely on the belief that regulation would be most effective by that method. On the other hand, the expectation of monopoly profit was certainly not ignored. In 1942 the net income of these sixteen systems was almost 23 percent of sales [12] and amounted to $84 million. Total receipts from sales of liquor by state liquor stores were $369 million, or about 90 per cent of reported receipts from all state enterprises. In spite of the incompleteness of reported figures, the conclusion that state business is principally liquor business is justified.

BUSINESS ENTERPRISES OF LOCAL GOVERNMENTS

Useful statistics of public service enterprises of local governments are collected only for cities with population over 25,000. Any statistical picture will therefore be incomplete, since these 397 cities containly only two-fifths of the population of the nation. The operating revenues of public service enterprises within these cities are given in Table 22.

TABLE 22 Operating Revenues of Public Service Enterprises of 397 U. S. Cities Over 25,000 Population, 1944 [13]

TYPE OF ENTERPRISE	NUMBER OF CITIES	OPERATING REVENUES ($ millions)
Water Supply Systems	321	299.8
Transit Systems	13	206.6[a]
Electric Light and Power Systems	51	136.6
Gas Supply Systems	14	26.3
Port Facilities	31	19.8
Airports	80	3.7
Other (Bridges, Railroads, Ice Plants, Radio Stations, Steam Heating, Canals, Tunnels)	—	9.9
Total		702.7

[a] This total is given undue importance in the table by the fact that operating revenues of the New York Transit System alone account for $125.2 million.

[12] *State Finances*, 1942, p. 77.
[13] From *City Finances*, 1944, p. 97.

The total operating revenue from these enterprises ($703 million) may be compared with tax revenues of the same group of cities of approximately two billion dollars, showing a considerable degree of commercial contact between the citizen and his local government. The two fields of widespread local government business enterprise are those of public water supply and the generation and distribution of electric power. Water supply systems lend themselves to public ownership and operation for several reasons: sources of supply are frequently a part of the public domain; operation and administration are essentially simple; readiness to serve increasing municipal population frequently requires recourse to distant sources of supply at higher cost, while rates may not be allowed similar increase; purity of water supply requires close supervision and constant check by public health authorities; the product is an absolute necessity, urging public policy designed to encourage widespread use by all income classes; its distribution and the exploitation of distant sources of supply may require the right of eminent domain.

Generation and distribution of electricity are not so clearly a "natural" public function. In this field the growth of public systems has largely taken place through the displacement of private firms—by public purchase of private plants. In such cases public ownership has almost always resulted from dissatisfaction with rates under private operation and public regulation.[14] At the same time, development of huge power resources by the federal government since 1930 has given a remarkable stimulus to public ownership of distribution systems. Federal policy has been consistent in granting priorities in the purchase of wholesale electric power from its projects to municipal systems and to cooperative enterprises. Thus, availability of low-cost federal power has encouraged both the purchase of private local distribution systems by municipalities and the construction of

[14] The La Guardia administration accomplished electric rate reductions in New York City by threatening to construct a city system in competition with the private system when rate reduction through the state public utility commission appeared impossible. Such competition would, in most cities, be highly uneconomic, since it would duplicate by extremely heavy investment existing distribution lines already capable of providing adequate service. Thus in almost all cases, if public ownership is to supplant private ownership economically, the existing system should be purchased by the public.

new systems in communities not previously served with electricity. In cases of the latter, construction has been materially aided by federal loans at low interest, principally by WPA and by the Rural Electrification Administration.

It must not be assumed that public ownership of electric light and power systems is yet really widespread. Table 22 showed that of 397 cities of over 25,000 population, only 51 were served by publicly owned systems in 1944. John Bauer estimated that in 1939 about two thousand municipalities (of all sizes) were served with public power, and that only about 7 per cent of total electricity sold was sold by municipal systems.[15] The significance of public ownership, however, is not fully indicated by these figures. Though small at present, a persistent trend toward substitution of public for private power has been evident. The rate of substitution accelerated during the thirties, principally under encouragement from federal projects. Local government revenue from public service enterprises in the states of Kentucky, Tennessee, Alabama, and Mississippi increased 173 per cent between 1932 and 1941, as against an average of 71 per cent for local governments throughout the country.[16] This unusual gain was due primarily to increased revenues from municipal electrical utility systems in the area, which, in turn, were encouraged by TVA.

Marked expansion of municipal industry in the future can hardly occur in the field of water supply, approximately 90 per cent of that field being already publicly owned and operated. Expansion of municipal commercial activity in local transportation is possible only in those large cities requiring mass transportation facilities. It would appear that any marked substitution of public systems for existing private systems would occur only if the inroads of the private automobile upon the demand for street railways, busses, and subways become so great that existing private investment in those lines becomes critically unprofitable. In such a case local government might

[15] John Bauer, "Public Ownership of Public Utilities in the United States," in *The Annals of the American Academy of Political and Social Science*, January, 1939, p. 50.

[16] Bureau of the Census, *Financing Federal, State, and Local Governments: 1941, 1942*, p. 45.

be required to take over in order to provide a necessary service. Of the remaining types of public enterprise listed in Table 22, only airports and electric systems show substantial promise of growth. Airports will undoubtedly become much more widespread; growth is likely to be largely under municipal auspices both because of desire of the city to provide local facilities for air transport without waiting for private exploitation and because provision of land area close to the city often involves the power of condemnation. Federal assistance, both with capital and with cheap wholesale power, combined with growing dissatisfaction with rates under public control, suggest continuation of a slow trend toward public ownership of electric systems. Among possible new fields of government enterprise, provision of housing facilities by municipalities shows real likelihood of attaining an important position.

DETERMINATION OF PUBLIC PRICES

Without entering into the intricacies of the matter, prices of privately produced goods in the market tend to represent both the utility of the good to the marginal buyer and its average cost of production plus a profit to the producer. The position of the buyer of government-produced goods is not different from that of the buyer of privately produced goods. He is urged to buy only by the utility of the good; if it is not worth its price to him he is free not to buy. It is true, of course, that the commercial fields into which government has entered are those which produce goods of wide usage. They constitute principally "necessary" goods of high utility, leaving little room for consumer choice as to whether at least some quantity will be purchased. But although "necessary" goods have highly inelastic demand for small quantities, the demand may be highly elastic for quantities beyond the minimum required. We are safe in concluding that the buyer is no more coerced to buy government-produced goods than he is to buy privately produced "necessities," such as bread, meat, gasoline, and medical services.

Supply prices—prices at which various quantities will be offered by sellers in the market—may be determined quite differently by private industry than by government. Private industry must, in the

long run, receive prices which will cover total costs (including taxes) and provide sufficient net return to attract sufficient venture capital. Government, one the other hand, may allow extra-commercial considerations to enter into determination of its supply prices, and is constrained at all times to conduct its operations with a view to promotion of general welfare. For these reasons government monopoly prices may be at a level above those which would be charged by competing private firms, though more frequently prices are comparatively low because government does not intend that the enterprise shall be self-supporting.

Arguments concerning private *versus* public enterprise frequently ignore this fact, in implying that public enterprise can justify its existence only when its receipts cover its costs and contribute to the general fund amounts which are substantially equal to what private enterprise would contribute in taxes. The implication is that public business must be as efficient as private business *in terms of private business objectives.* A public business enterprise which operates at a loss may well make contributions to community income through cheap water, cheap electricity, cheap transportation, cheap loans, or cheap postage far in excess of its operating deficit. But even if it does not, it may accomplish community welfare through its enterprise which it is a governmental responsibility to promote. For many reasons it is a desirable *general* rule that government commercial enterprise be self-supporting, although departure from the general rule must be liberally allowed when extra-business considerations are important. There is general willingness to have efficiently run government enterprises operate at planned losses. However, the prices which produce such losses should evidently not be used as a "yardstick" to measure the reasonableness of prices charged by privately owned enterprises operated at a comparable level of efficiency.

The interests of government are inevitably broader than those of private enterprise. The consequence to cost calculation of broader public interest is that almost every government-produced good is more than one good—it is a good providing individual utility to the buyer, while at the same time providing utility to the community in terms of more general welfare. The second is normally regarded

as a by-product of the first,[17] and although there can be no exact science of allocating joint costs among multiple products, it is logical that the by-product bear some share. It is upon this type of analysis that operation of some public industries at less than cost (the remainder to be made up by the general fund) can be justified. It follows, however, that no such justification exists for long-run operation of private business at less than cost, since no outside source of revenue—comparable with taxes—exists for it.

The allocation of a share of costs of production to society in general, by covering deficits of commercial enterprises from tax receipts, results in subsidies to consumers of the product. On the other hand, government price determination frequently involves subsidies to producers through artificial additions to price. Financial assistance to civil aviation has been given through intentional overpayments to carriers of air mail. Ocean mail contracts have included elements of subsidy to shipping. These subsidies are considered as items of cost of operating the postal srvice, and when postal revenues equal postal expenditures, the subsidies are paid by purchasers of postal service.

We have pointed out that government price determination may differ from that of private business by differences in factors influencing supply price. In analyzing the factors which may make government cost different from that of private enterprise the impression may have been given that public enterprises typically are not self-supporting. Such a generalization cannot fairly be made. Public water supply systems are typically self-supporting, as are municipal electric light and power systems and most other municipal enterprises. In the narrow field of local transportation the record is spotty, the outstanding example of operation at less than cost being that of New York City. In the area of state enterprise, liquor monopolies have profited well, while other minor enterprises have in general made an acceptable financial record.

Among federal enterprises the postal system has consistently—

[17] If community utility were considered the principal product and utility to the individual the by-product, the service would likely be distributed free as a general governmental service, or at nominal administrative charges imposed upon contact with benefited individuals.

except during war—operated at a deficit during recent times. This has been due principally to the introduction of subsidies, not only to carriers but to third class mail (principally magazines and newspapers), and to free mailing service for government departments. Both of these contributors to deficits are evidently non-business costs. The Panama Canal has through its history by no means repaid its money costs for construction, maintenance, operation, fortification, and interest, in direct revenues. Its military character, however, places it far outside the category of pure commercial enterprise, though its present value as a going concern would, in any business accounting sense, be at least equal to its construction cost, and thereby justify the conclusion that as a business enterprise it has been reasonably successful. Of the many government corporations created more recently no simple generalizations can be made. Some were set up as corporations for purely administrative reasons, with no intention that they be self-supporting. The Commodity Credit Corporation, for example, at the end of fiscal 1946 had an accumulated earned deficit of 2.1 billion dollars.[18] The Corporation was not, however, established as a self-supporting enterprise but rather as an agency of government to administer subsidies, primarily to agriculture. Price-supporting activities are essentially relief activities, which are not by nature self-supporting. Most other federal corporations which have built up large earned deficits are in the same category of organizations created to administer subsidies or to provide necessary war materials the development or accumulation of which would not be undertaken by private concerns.[19] On the other hand, some corporations have been financially successful, even though they were created to enter fields of risky enterprise. The Reconstruction Finance Corporation had, by the end of fiscal 1946, an earned surplus just over one-half billion dollars. Other enterprises with outstanding earned surplus are the Federal Land Banks, the Intermediate Credit Banks, and the Farm Mortgage Corporation.

Our interest here is not to discuss the perennial question whether

[18] *Annual Report of the Secretary of the Treasury*, 1946, p. 587.

[19] Those corporations with large deficits include: Federal Crop Insurance Corporation, Defense Plant Corporation, Defense Supplies Corporation, Metals Reserve Company, Rubber Reserve Company, U. S. Cmmercial Company, Rubber Development Corporation, and the various housing corporations.

private or public industry is more efficient or productive of the public good. We have limited ourselves to a description of the fields from which price revenues are received, and have indicated general reasons why government is found operating in certain commercial fields. Consideration of the principles of public price determination leads to the conclusion that when government enters a "commercial" field—producing goods and services for sale—many extra-commercial influences may enter. To the extent that these influences do enter, more or less disparity between public and private prices may result. Any attempt to compare the efficiency or desirability of public operation with private should begin by analyzing similarities and differences in the goods and services sold, to determine whether a real basis for comparison exists.

RECOMMENDED READINGS

May, S., "Government Ownership," *The Encyclopaedia of the Social Sciences*, N. Y., Macmillan, 1934.

An excellent source of theoretical and descriptive information.

Jacoby, N. H., "Government Loan Agencies and Commercial Banking," *American Economic Review Supplement*, March, 1942, pp. 250–60.

Best available short treatment of a field meriting far more exhaustive study.

Troxel, C. E., *Economics of Public Utilities*, N. Y., Rinehart, 1947, Chapter 29.

A very good discussion of municipal electric utility systems.

Barnes, I. R., *The Economics of Public Utility Regulation*, N. Y., Crofts, 1942, Chapter 24.

Discusses public ownership in the electric utility field. The chapter is largely descriptive and thus requires little knowledge of public utility regulation.

CHAPTER 12

TAXES: ALLOCATION OF TAX BURDENS

Seligman's definition of a tax as "a compulsory contribution from the person to the government to defray the expenses incurred in the common interest of all without reference to special benefits conferred,"[1] will serve well as a starting point in our consideration of the nature of taxes. Compulsion is a general characteristic of taxes, though this compulsion may be subject to qualification when, for instance, a tax is applied to the sale of one good while sale of a competing good is tax-free. A special tax upon the sale of oleomargarine while sales of butter, lard, and vegetable shortening are untaxed leaves a large area for tax-avoidance which is not entirely consistent with the notion of compulsion as a tax characteristic.

The implication that taxes are or must be used exclusively for common benefit without reference to special benefit is, in marginal cases, a too narrow prescription. It would be difficult to argue that tax deductions from workers' weekly pay for old-age annuity purposes are entirely "without reference to special benefits conferred," especially when the amount of such taxes is based upon actuarial calculations. On the other hand even this example may lead to an impatience with the definition in terms of general benefit which overlooks the large element of "common interest" involved in old-age security (maintenance of a high level of consumption), the con-

[1] E. R. A. Seligman, *Essays in Taxation,* 10th ed., New York, Macmillan, 1925, p. 432.

tributions of employers to the plan, and the fact that normally some of the employer's contribution and some of the employee's contribution is eventually passed on to the buyers of products.

A rewording of Seligman's definition, changing "without reference" to "with little reference," would give a definition of a tax which leaves small room for exception. The important facts are that taxes are essentially coercive and that they are collected as general funds to be budgeted among the various governmental functions. The earmarking of particular taxes for particular functions (*e.g.*, gasoline taxes) short-cuts normal budget procedure, but does not change the nature of the tax as a general contribution. As governmental functions expand there are inevitably services undertaken primarily for segments and not the whole of society, and a consequent tendency to designate as new classes of taxpayers those who can be identified with benefits from the new functions. Some social security taxes demonstrate this tendency, as do gasoline taxes and some business taxes.

Revenue Importance of Taxes In terms of financial contribution, taxes are by far the most important of the various classes of revenue receipts at all levels of government in the United States. In 1941, 94 per cent of federal revenue receipts were produced by taxes; among state governments the proportion was 78 per cent, and among local governments 65 per cent.[2] Other than taxes, the major type of receipts for state and local governments was grants from other governments. The figures thus have real meaning only as related separately to each level of government; an over-all percentage for all governments would introduce double counting, as some part of grants to governments at lower levels is duplicated in tax revenues to governments at higher levels. Thus, a part of revenue received by the state governments was originally tax revenue to the federal government, and the major part of grants to local governments was first tax revenue to the states. It is evident, however, that a study of public revenues requires principal attention to the most important class of such revenues—*i.e.*, taxes.

[2] Computed from Bureau of the Census, *Financing Federal, State, and Local Governments: 1941*, 1942, p. 22.

Revenue Importance of Particular Taxes A preliminary view of the pattern of tax distribution is given in Table 23. We shall have much more to say on this subject as we study individual taxes in subsequent chapters. The table indicates roughly the decisions of governments at different levels as to appropriate

TABLE 23 Proportionate Revenue Contributions of Classes of Taxes, U. S., 1941 [3]
(% of total TAX *revenues of each type of government)*

TAXES ON:	FEDERAL	STATE	LOCAL	TOTAL[a]
Net Income of Individuals	18.1	5.2	——[b]	9.7
Corporation Net Income	26.4	4.2	——[b]	13.2
Inheritance, Estates, Gifts	5.2	2.7	——[b]	3.1
Property	00.0	5.5	91.7	26.4
Specific Businesses	2.4	11.6	3.9	5.3
Imported Goods (Customs)	5.0	0.0	0.0	2.3
Sales	29.9	40.5	2.3	25.3
Payrolls	12.7	20.0	——[b]	11.2
Other[c]	0.3	10.3	1.9	3.5
Total	100.0	100.0	99.8	100.0

[a] Includes $146 million tax revenue of territories and island possessions excluded from other columns.
[b] Negligible.
[c] Includes some license receipts not properly included in tax revenues.

distribution of contributions among various classes of taxpayers. Upon what basis have governments arrived at these decisions? How acceptable are the decisions in terms of application of the principle of equity among taxpayers, productivity of the tax system, and the effects upon the level of national income? These are questions on which tax theory must offer guidance, and constitute the problems with which we shall deal in the remainder of this chapter.

OBJECTIVES OF TAXATION

The time-honored objective of taxation is to raise revenue. Although government is not limited to the use of taxes for

[3] Computed from Bureau of Census, *Financing Federal, State, and Local Governments: 1941, 1942*, p. 22.

revenue purposes alone, this objective has generally been uppermost. The introduction of new tax measures, or the "strengthening" of existing measures, means in most cases an increase in government income, to finance normal expansion of governmental activity. Adjustments in existing tax measures to provide a greater degree of equity among taxpayers have frequently come about slowly if at all because of the decline in revenue productivity which such adjustments often entail. Although the ease of borrowing frequently softens the desire to tax in order to pay current expenses, there is little reason to expect that the revenue objective will seriously diminish in importance in the future.

A second objective of taxation may be that of regulation or control. This is "sumptuary" taxation. Although technically the term "sumptuary" refers to the regulation or control of private expenditures, in public finance usage it has come to represent all extra-revenue objectives of taxation. The protective tariff is a revenue measure in the sense that it does produce governmental revenues, but in the United States its particular objective has historically been to limit imports of various products. The practice of governments of imposing high consumption taxes upon liquor and tobacco can be partially explained by a desire—at least in the early stages—to discourage use. The taxing out of existence of state bank notes during the Civil War, the abortive attempt to eliminate child labor by heavy taxation of the products of child labor, the imposition of discriminatory special business taxes upon chain stores, and various tax barriers to the sale of oleomargarine, are examples of the use of what had traditionally been revenue measures for non-revenue or sumptuary purposes.

The question naturally arises why revenue tools should have been frequently used to accomplish the regulatory purpose. The most ready answer is to be found in the fact that use of revenue tools may accomplish regulation while at the same time serving a revenue purpose. A second explanation lies in the easy availability of tax machinery, while direct regulation would require establishment of new regulatory agencies. In the cases of some sumptuary taxes one is forced to the conclusion that regulation was desired through subter-

fuge—the desire to regulate or prohibit traffic in certain goods without implying that the principal objective was, in fact, regulation or prohibition.

It has frequently been argued that the regulatory function should be administered directly by regulatory agencies, and not by fiscal measures. As a general rule this appears sound. For the mixture of revenue-collection and regulation may well mean that neither function is administered as well as it might be. In addition, limitations upon purchase which are imposed through price-increasing taxes make the limited goods available only to those who can afford them. We are not concerned here with matters of trade policy. Whether or not it is economic to restrict imports into the nation or into a state or community lies outside the scope of our present study. But if some such policy is being followed, we are interested in the question whether it should be administered through direct prohibitions or quotas or through tax laws. In general, direct regulation is indicated except in those instances where a genuine revenue consideration is present. In such instances the treasury must set up machinery for tax collection, and may, with little additional effort, administer regulatory laws.

The third objective of taxation is in fact an extension of the second. When the sumptuary motive is expanded to the point where it refers not to the flow of a single good, but to the flow of national income, alternative methods of accomplishing the objective are not present. We know that taxes, which transfer income from individuals to government, are capable of altering the pattern of private consumption and investment, and thus of the level of national income. At a given level of incomes, taxes which are added to price tend to discourage purchase. Likewise those taxes which are taken from surplus income and thus not added to price reduce funds available for private consumption and investment. This all suggests that government's objective in using its tax measures may well be primarily regulation of the level of income and not the production of treasury revenue. In low income periods the national income necessity for heavy expenditures and light taxes clearly subordinates revenue objectives to sumptuary objectives. Similarly, in periods of threatened inflation at the full production level, public policy calls for heavy

taxation and a minimum of spending, the principal fiscal objective being sumptuary. It is clear, therefore, that national income objectives, as they relate to taxation, frequently call for policy which is directly opposed to that which would normally be pursued if the revenue objective were paramount.

A small group of economists, led by Mr. A. P. Lerner, carries this conflict in objectives to the extreme point where revenue considerations are ignored completely. They insist that public finance must be "functional finance," in which every other consideration must give way to that of maintaining an adequate level of national income. On the side of taxation functional finance takes the position stated in the following quotation:

> The effects that the government should consider are primarily the effects on the *public*, in whose interest the government is supposed to be acting. The effects on the *government* are always relatively unimportant. . . . For example, two effects of any tax payment are that the taxpayer has less money and that the government has more money. The first of these effects is important, so that the tax should be imposed if there is a good reason for wanting the taxpayer to have less money. The effect upon the government, namely that the government will have more money, is not important because the government can always get more money quite easily without impoverishing any taxpayers. . . .
>
> From this it follows that taxes should never be imposed simply because the government needs money. Economic transactions, . . . should be taxed only when it is thought desirable to discourage these transactions. *Individuals* should be taxed only to the extent that it is desired to make the taxpayer poorer.[4]

This extreme view assumes that public debt is burdenless, or at least that the burden of debt at a level of full employment will always be so light as to make it inconsequential in relation to tax burdens. At the same time, this view appears to postulate so little vigor in the private economy as to imply that full employment can seldom be attained against the barrier of a constant, reasonable level

[4] A. P. Lerner, "An Integrated Full Employment Policy," *International Post-war Problems*, Quarterly Review of the American Labor Conference on International Affairs, January, 1946, p. 70. The same position is taken in Lerner, *The Economics of Control*, New York, Macmillan, 1946, pp. 307–8.

of taxation. Truly there are limits (but not fixed throughout the cycles) beyond which taxation will force national income below a desired level. But are these limits so low that over a complete business cycle or a series of cycles the budget cannot be balanced, or nearly so?

The more moderate, though liberal, view concludes that taxation (and spending) should follow constructive counter-cycle policy; *i.e.*, that sumptuary objectives of taxation are of great importance and should, in general, take precedence over revenue objectives. On the other hand, however, the revenue objectives cannot be dismissed, both because debt is not burdenless and because full employment can be attained against the obstacle of a reasonable "normal" level of taxation. Certain governmental functions must be maintained year after year whether the current level of national income is high or low. The question is, should these functions be paid for by borrowing except in those periods when the budget is accidentally balanced because anti-inflationary policy calls for taxation to take income away from individuals?

Government has a rightful claim upon the income of individuals. It has in the past chosen to exercise that claim unwisely in terms of the business cycle—both increasing and decreasing tax rates at the wrong times. This has been due principally to the exaltation of the revenue objective in taxation. The adoption of counter-cycle sumptuary objectives need not mean renunciation of government's right to a share of individual income or relegation of the revenue objective to a position of insignificance. In the short run the compensatory objectives will be supreme, while revenue objectives justify a norm of taxation for revenue purposes, to be departed from when the exigencies of cyclical fluctuations in income require it.

ALLOCATION OF TAX BURDENS

We now proceed to a consideration of principles which will guide in the construction of particular tax measures and of an over-all tax system. This implies both the selection of the types of taxes to be used in preference to other possible types and the determination of the amounts which different individuals should contribute under a given tax.

Two Fundamental Considerations Before entering further upon tax theory it will help to clarify our thinking and to avoid pitfalls if we emphasize two basic facts. They are:

1. All taxes are eventually paid out of income, and in the last analysis out of the income of individuals. The only exception to this generalization is that when taxes exceed income they must be paid out of capital.
2. Many taxes do not finally rest upon the person upon whom they are first imposed.

The significance of the first lies in its ability to simplify what at first glance is a highly complex picture. It enables us to see that by whatever route it follows, a tax must finally transfer individual income to government. It makes possible generalization in terms of the flow of economic income and therefore of the larger aspects of the economic effects of particular taxes. Further than this, if we see that in a private property economy all income is finally individual income, we are in a position to detect and avoid discriminatory multiple taxation of a given individual's income.[5]

Recognition that the burden of a given tax does not necessarily fall upon the person who originally pays it will help us to avoid logical errors in analysis of the burden of particular taxes. Superficial assumption that the person who writes the check to the treasury is necessarily the person who bears the tax burden will lead to conclusions which are far from the facts concerning the real effects of a given tax. Tax theory begins with ideals of justice which are hopefully to be reflected in specific legislation. Whether those ideals are actually accomplished depends, of course, upon our ability to trace tax burdens to their final settlement.[6] In our analysis of particular

[5] For example, we are able to see that income to a corporation is only on its way to becoming income to owners of the corporation, and is not a separate income stream. Thus, taxation of corporate income plus taxation of individual income is double taxation of that individual income which comes through the corporation. If individual income from other (non-corporate) sources is not doubly taxed en route, tax discrimination against corporate-produced income occurs.

[6] An excellent example of this type of pitfall is to be found in Paul Studenski, "Toward a Theory of Business Taxation," *Journal of Political Economy,*

taxes in relation to general principles of tax-burden allocation, we shall be required to trace out these burdens to the greatest practicable degree.

Possible Bases of Tax-burden Allocation Before any particular tax measure can recommend itself, some fundamental decision must be made as to the basis upon which tax burdens are to be allocated among various payers. That tax burdens should be distributed "fairly" or "justly" is taken for granted, but what, specifically, do fairness and justice imply? We postulate the need for governmental performance of certain functions for the benefit of the society. It is for this reason that contributions cannot be left on a voluntary basis, allowing each to contribute what he thinks is "right" or "fair." But if coercive power is to be used to extract contributions, some positive basis of allocation must be determined upon.

It is inevitable that in allocation of burdens society must be thought of as being composed of broad classes. No possible legislation could distribute real burdens equally among all individuals, principally for the reason that though burden is an essentially personal thing, it can be measured for tax purposes only by external indications which are themselves somewhat inaccurate. Tax measures thus consider society as made up of classes: income classes, propertied classes, producer classes, and consumer classes. Within any class by no means all the variables can be taken into account if the measure is to be administratively workable.

But as among classes of taxpayers, what does "fairness" mean, and what measures of fairness can be found? It means equality of burden among taxpayers. The poll tax implies that equality requires the same taxes to be paid by all, excluding minors. At a later stage

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October, 1940. The author develops an elaborate list of theoretical bases for justification of special taxes on business, concluding that one or more of these bases will be applicable to every type of business. He weighs various kinds of business taxes and states his preference for one type. His analysis of the locus of final burden of the tax leads him to the conclusion that it might be upon consumers of the product, upon the factors of production employed, or upon the profits of the business taxed. In the end, therefore, we find that only in certain circumstances do the burdens rest partially upon the business; it does not appear to occur to the author that because the tax is largely shifted to others his elaborate battery of theoretical justifications for special business taxes is largely vitiated.

equality of burden has implied payment in proportion to some outward indication of faculty, such as the amount of property owned or the amount of income received. Until late in the nineteenth century it was taken for granted that the only fair system of taxation was that which called for proportional rather than equal contribution. This is, in itself, an admission that the burden of a dollar of taxes is unequal as between persons of different incomes. But how unequal? If equal taxes mean unequal burdens, do proportional taxes mean equal burdens? The answer is in the negative, and grows out of the principle of the diminishing marginal utility of income. We shall have occasion to discuss this point more fully later in the chapter when we come to study the basis for progressive taxes.

But the amount of tax to be paid is the product of the tax rate times the tax base.[7] Questions of fairness must, therefore, deal not only with how heavily a thing should be taxed, but also with what things should be taxed. What handles are there to grasp? What outward indicators of capacity to pay can be found? At one time in England it was thought that ownership of a residence with glass windows indicated peculiar tax capacity. The poll tax assumes that arrival at the age of majority implies capacity to pay taxes. The property tax carries on the colonial presumption that ownership of property is a good measure of tax faculty. In modern times the trend is toward use of income as the tax base. Actually, income is the only source of taxes, and therefore exists as the only really reliable starting point for allocation of burdens upon which to compare the faculties of various taxpayers. All other tax bases mentioned above were nothing more than attempts to measure income by external appearances, and were (are) subject to wide error.

If income, the source of tax payments, is accepted as the ap-

[7] The tax rate is the multiplier in calculation of the amount of tax. The tax base (*e.g.*, value of property, value of income) is the multiplicand. In the case of *ad valorem* taxes the tax base is measured in terms of value and the rate as per cent or cents per dollar. *Specific* taxes measure the tax base as physical quantity (*e.g.*, one bushel of wheat, twenty cigarettes, one automobile), while the rate is measured as an absolute number of dollars or cents per physical unit of base. Examples of *ad valorem* taxes are: "2% sales taxes," income taxes, property taxes, and many excises where the base is expressed in dollars. Examples of *specific* taxes are many customs duties (42¢ per bushel of wheat), gasoline taxes, cigarette, and most liquor taxes.

propriate tax base, the problem of equalizing the intensities of tax burden becomes one of determining appropriate rates of tax on incomes. But when several tax bases are used, the problem is complicated by the necessity of comparing not only the burdens among payers of the particular tax but also comparing burdens on those subject to the particular tax with those not subject to it. This is to say that, when the tax system applies to a multiplicity of bases, the difficulty of measuring the burdensomeness of that system upon individuals is increased.

Cost and Benefit Among the oldest of principles followed in allocation of tax burdens are those of cost and benefit. The former implies that whenever governmental costs are incurred for the benefit of particular individuals, such costs should be borne by them. The latter proclaims the desirability of allocating taxes upon individuals according to the benefits which they enjoy from governmental action. The two are essentially alike, in that both place the state in a semi-commercial position with respect to citizens, though the first carries implications of budget-balance not necessarily implied by the second. The two fundamental faults in cost and benefit as general bases for allocation are (1) the difficulties to be found in measurement of cost and benefit, and (2) the undesirable limitations which they place upon the scale of government services.

Obviously neither cost nor benefit can be allocated among citizens with any degree of accuracy. Most government costs are of the "overhead" variety, involving difficulties of allocation. And benefits are, to a major degree, general. Who, specifically, benefits from the operations of the judicial branch of government? What part of the cost of fighting a war is my rightful share, as distinguishable from yours? And even when benefit at first glance appears to be reasonably allocable, careful investigation generally shows secondary and tertiary beneficiaries. For instance, relief recipients clearly draw special benefits from relief allowances, but how about the butcher, the baker, and so on back to the farmer? The automobile driver benefits from good highways, but so do the automobile and petroleum trades and the economy generally. It is clearly not "fair" that only the primary beneficiaries bear the cost, and yet beyond the primary beneficiaries, how can benefits be quantitatively allocated?

On grounds of the impossibility of proper allocation alone, cost and benefit as general bases must be rejected.

But the rigidity which these requirements would impose upon government also demands their rejection. For cost and benefit as the bases for distributing tax obligations would rule out many of the general functions which government must perform. Relief of the needy, for example, could not be undertaken; for by definition the primary beneficiaries cannot assume any part of the cost of the function. Public education could be made available only to those able to pay their way. Clearly the objectives stated in the Preamble to the Constitution of the United States would be impossible of any reasonable degree of attainment if government were, by the cost or benefit principle of taxation, relegated to the status of purveyor of services at a price.

There are, of course, situations in which cost and benefit are relatively easily allocable, and the principle of cost or benefit may reasonably be applied. The state highway department may build a highway in front of my house, and may be willing to pave my driveway leading to it. In such a case I should obviously pay the cost. Likewise, when costs can be allocated to groups of beneficiaries who are clearly almost the exclusive beneficiaries (*e.g.*, municipally produced electricity) there is good reason for them to pay their way. But these are actually and reasonably price, not tax, payments. When cost or benefit cannot be scientifically allocated, or when such allocation would restrict the performance of socially desirable service—in short, in the vast majority of instances—these bases are quite unacceptable.[8]

Ability to Pay Allocation of tax burdens among individuals on the principle of ability to pay *is* equalization of the tax burden. For ability to pay, correctly determined, brings us as close to the real tax base (income) as it is possible to be. The ability principle implies (1) a tax base which is capable of measuring ability to carry burdens, and (2) schedules of rates which truly equalize those burdens. Ability to pay refers to the relative (among individuals)

[8] In spite of the fact that large elements of the benefit principle are now being implemented in property taxes, business taxes, and sales and excise taxes. (See Table 23, this chapter.)

real sacrifice involved in tax payment. That individual who can with least personal sacrifice give up a dollar from his income is the individual among all individuals who has the greatest ability to pay the next dollar in taxes. He is by no means necessarily a person who would otherwise spend his dollar for real estate, for liquor, for gasoline, or for movies. And he is not necessarily a person who would otherwise hoard his dollar. What he would otherwise do with his dollar unfortunately cannot tell us much about how much it hurts him to be forced to transfer it to government. The only way to be sure that government would take next the least useful dollar of private incomes in the whole society would be to have an infallible measure of subjective utilities. This measure would need to be quantitatively exact as applied to different individuals, and measurable in an objective manner, free from the vagaries of individual reporting on the basis of introspective searching. Clearly, subjective utilities and disutilities are not accurately measured in the market place. Two persons who spend a dollar each for the same quantity of the same good do not necessarily derive the same subjective enjoyment.

The problem is to select the outward measure which will most closely approach subjective utility and disutility. This is net money income. This measure is obviously more acceptable than purchases of a given commodity, current purchases of all commodities, ownership of physical goods, or just being alive and over twenty-one years of age. Yet it is by no means a perfectly just measure. For two individuals with the same net money income may differ in number of dependents, financial commitments, expectation as to future income, habits of consumption, and consumer tastes. Taking a dollar in taxes from each may therefore cause quite different sacrifices. Partial mitigation of such inequities may be accomplished through specific provisions in tax legislation. Number of dependents is typically a datum in determining tax liability from any income. But even so, to allow a fixed tax credit for each dependent assumes a uniformity among dependents which does not exactly exist. Debt position can be taken into account in framing income tax laws by granting tax credits for interest paid. Expectations respecting the duration of income at a given level may be roughly allowed for by treating labor (tempo-

rary) incomes and property (permanent) incomes differently, and and by allowing a carry-over or carry-back of credits. But hardly anything can be done to mitigate inequities caused by different habits of consumption or different tastes. Even so, income is the best available measure of the subjective ability to pay. And it possesses the administrative merit of avoiding moral judgments upon individual choices, such as are implicit in purchase taxes.

Sacrifices and the Rate of Taxation The paragraphs immediately preceding have dealt with the selection of that tax base which most closely approximates the basic determinants of ability to pay. We find that base to be net income to individuals. But the choice of the best tax base can be vitiated by application of improper rates to that base. In this section we analyze the intensity of tax burden in terms of the type of rate schedule which fairness in taxation demands. And again we are forced to use burden in the sense of the subjective sacrifice which tax payment entails.

We shall classify rate schedules under three general categories. A schedule of *proportional* tax rates is one in which the rate of tax remains constant as the tax base changes. A schedule of *progressive* tax rates is one in which the rate of tax increases as the tax base increases. A schedule of *regressive* tax rates is one in which the rate of tax decreases as the tax base increases. Thus, recognizing that the amount of tax payable is the result of multiplying the base by the rate, in the case of a proportional tax the multiplier remains constant with changes in the multiplicand; in a progressive tax the multiplier increases as the multiplicand increases; in a regressive tax the multiplier decreases as the multiplicand increases. Diagramatically, the differences are as shown, p. 288. By definition a proportional rate schedule can be established at any level provided the rate remains constant at that level. A progressive rate schedule offers many slope patterns, all of which represent progression so long as any increase in base is accompanied by an increase in rate. The same is true of regression, provided the rate decreases when the base increases. A tax rate schedule may combine more than one of the types shown. It is common for income tax rates which we say are progressive to progress by brackets; variations of income (tax base) within a given bracket carry proportional rates, while

rates progress by brackets as income increases. The curve of the schedule would thus look like a profile view of an irregular set of stairs, where the risers become longer and the treads broader as we look from bottom to top.

Correctly used, the terms proportional, progressive, and regressive refer to the relation between the tax rate and the tax base. Commonly, however, we refer to the "regressive effect" of a tax

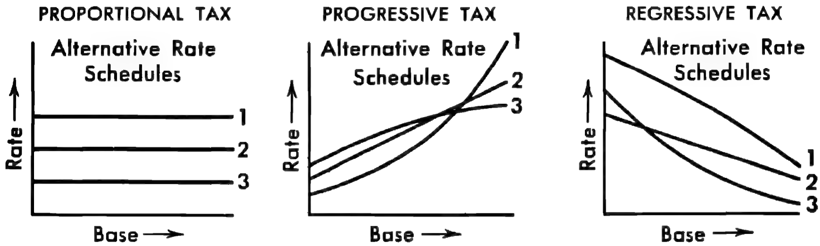

FIGURE 2 Diagrammatic Representation of Possible Proportional, Progressive, and Regressive Tax Rate Schedules.

which may not be technically regressive at all. For instance, a sales tax is typically a proportional tax, because its rate is constant no matter how large or small the base. This is true (typically) whether the tax is an *ad valorem* or a specific one.[9] The usual sales tax rate is 2 per cent whether the purchase is large or small, and the federal tax on cigarettes is 7 cents per package no matter how many packages are purchased. But if the *amount* of the tax is related to the buyer's income, such a tax may have a "regressive effect." If two persons of different incomes purchase the same quantity of taxed commodity, the tax paid bears a higher relation (rate) to the smaller income than to the larger. Thus, a tax which is technically proportional in terms of the base of the tax as defined may be regressive in terms of the taxpayer's income. The latter use, though technically incorrect, often carries so useful a meaning that we would be unwise to ban it. And the dual meaning should cause no analytical difficulty once our attention is directed to it.

Of the major tax measures now in use by governments in the

[9] See footnote, p. 283 for description of *ad valorem* and specific taxes.

United States,[10] property taxes, sales and excise taxes, payroll taxes, customs duties, and some specific business taxes carry proportional rate schedules. Taxes on individual incomes, corporation incomes, estates and inheritances, and on some specific businesses are typically at progressive rates. There are no examples of regressive taxes. It is rather generally agreed that the federal tax system is as a whole progressive, because of the preponderance of progressive tax measures (personal and corporate income taxes) in it. The typical state and local tax system is "regressive" in the sense that a larger share of *income* is taken from the low income receiver than from the high income receiver. State and local systems are preponderantly composed of proportional taxes on things (*i.e.*, property and consumption taxes), which are actually regressive in terms of income.

Our general theory of taxation must tell us whether fairness in the distribution of burdens requires proportional, progressive, or regressive tax systems. If the cost theory of taxation were acceptable we should probably adopt the practice of the market place, charging each beneficiary of government service his proportionate share of the cost. And under the benefit theory individuals would probably pay in proportion to benefit derived. Since we have rejected cost and benefit as general bases upon which taxes should be allocated, and recommended the ability principle, we shall investigate the implications of ability as related to rate schedules on the income base.

Adam Smith's first maxim of taxation was, "The subjects of every state ought to contribute towards the support of the government, as nearly as possible, in proportion to their respective abilities; that is, in proportion to the revenue which they respectively enjoy under the protection of the State."[11] Here is clear recognition that, in the last analysis, what an individual ought to contribute should be determined with reference to his income, and not to some external and haphazard indication of his income. But more important for our present purpose is his emphasis upon *proportion*. Contribution "in proportion to their respective abilities" can undoubtedly be interpreted as favoring progressive taxation, if it can be shown that the

[10] *Cf.* Table 23.
[11] *Wealth of Nations*, 1776, Modern Library Edition, p. 777.

increase in ability is more rapid than the increase in income. But Smith was not acquainted with the more recently developed principle of diminishing utility; consequently, "in proportion to their respective abilities" carried for him a meaning identical with "in proportion to the revenue which they respectively enjoy." Up to the end of the nineteenth century, the essentially unanimous opinion of writers on the subject supported the view that fairness or justice in taxation calls for taxation at proportional rates. (The exceptions were those few "radicals" who advocated taxation for purposes of equalizing wealth and income rather than for revenue.) Proportional taxation unquestionably carries simple implications of justice and equality.

About 1870 the almost simultaneous but independent discoveries of the principle of diminishing marginal utility by Jevons, Menger, and Walras, introduced a new economic concept which has through refinements profoundly altered the general view concerning the comparative sacrifices involved in different tax-rate schedules. To be sure, until World War I a wide disparity existed between theory and practice, but since that time experience with progressive taxation has immensely bolstered the theory in the public mind.

The principle of diminishing marginal utility of goods states the subjective fact that, after a certain point as additional units of a good are consumed, the utility or satisfaction derived from each additional unit declines. Realizing that this is true of an individual consumer's good, we may lump together all such goods into a composite picture of the diminishing marginal utility of all goods which the individual may consume. The composite picture showing the diminishing marginal utility of all goods combined is a picture of the marginal utility of money income to the individual income receiver.[12] We thus have a picture showing that as additional dollars

[12] We have discussed marginal utility of income in terms of the consumers' goods income will buy. The marginal utility of money income should, of course, be discussed in terms of the utility to be derived from any possible disposition of the marginal income dollar. It can be spent for consumption or saved. The subjective utility to be derived from a dollar saved must compete with the subjective utility of a dollar consumed in determining the disposition of that dollar. Utility is of the same general character (satisfaction) whether income is consumed or saved.

of income are used they contribute—after a certain point—less and less satisfaction per dollar to the user. The marginal utility of money income of course diminishes less rapidly than does the marginal utility of an individual good. That is, when an income of $2000 is spread over a wide variety of goods, the last dollar spent provides far more satisfaction than if the whole income were spent for loaves of bread.

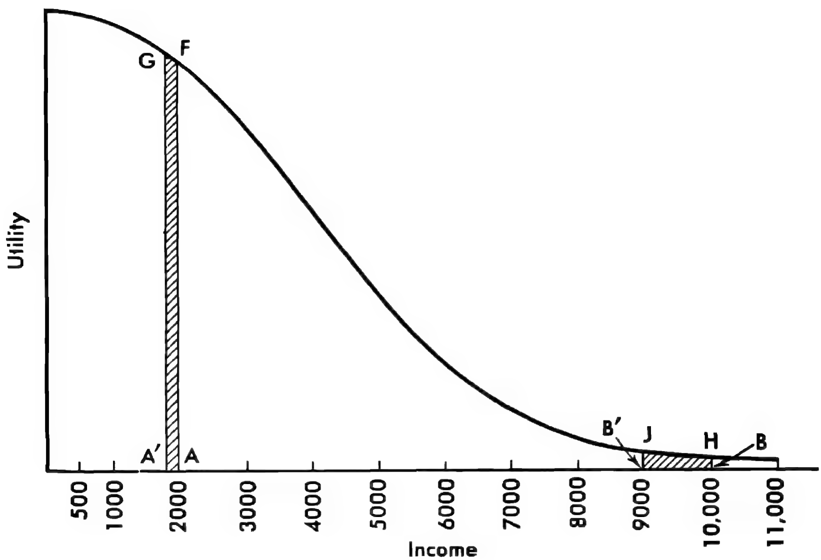

FIGURE 3

Diagrammatically the picture which we have described above—of the diminishing marginal utility of money income—would be somewhat like that of Figure 3. The first few dollars of income (500 by assumption on our graph) constitute an absolute minimum of subsistence for the individual income receiver. Beyond this minimum amount required for mere subsistence marginal utility decreases, slowly at first as additional comforts of high utility are procured, and then rapidly as the size of income makes possible the purchase of luxury items. When incomes become large, marginal

utility has fallen to a low level, and the rate of diminution of marginal utility is low, approaching zero.

On our chart the area included under the curve represents total utility derived from the quantity of income used. Thus, the utility sacrificed by payment of taxes is the utility which would have been enjoyed from expenditure (or hoarding) of that amount, and can be shown as an area on the diagram. If taxpayer A, with a $2000 net income, were required to pay in taxes 10 per cent of that income ($200), the sacrifice of utility would be indicated on the graph by the area AFGA′. If taxpayer B, with a $10,000 net income, were required to pay 10 per cent of his income ($1000), the sacrifice of utility would be indicated by the area BHJB′. It is evident, therefore, that a proportional tax of 10 per cent involves quite unequal sacrifice of utility on the part of the two taxpayers. If A is to be taxed 10 per cent of his income and it is desired to require equal sacrifice from A and B, then we must take from B until the area of utility sacrificed is equal to that of A. This would mean (reading roughly from the diagram) that B should be left about $7200 after taxes, and the tax rate on his $10,000 net income should be 28 per cent.

Let us see what we have assumed in this numerical example. In the first place, we have assumed marginal utility to be measurable with accuracy, which it is not. Tax authorities cannot draw curves of diminishing marginal utility of income with a degree of accuracy which would prove without qualification the results of the type of calculation which we have made. If they could, the establishment of schedules of progressive rates which would guarantee equality of sacrifice would be a relatively simple matter. In the second place, in our exercise we have implied a generalization that persons with equal net incomes have the same schedule of marginal utilities. Again we must admit that this is not precisely the case. Among single persons receiving identical net incomes, some will be at the "age of accumulation" while others will already possess the chattels which go with that income level; some will have simple tastes while the tastes of others will be expensive.

Must we, therefore, reject the principle of diminishing marginal utility in formulation of our tax structure? Does the impossibility of accurate measurement of utility mean that we must reject progres-

sive taxation? McCulloch's objection to abandonment of proportional taxation in favor of progressive taxation based upon diminishing utility which is not accurately measurable was that it put us "at sea without rudder or compass." It is essential that we distinguish the fact that marginal utility typically does diminish from the fact that its rate of diminution as related to an individual or an income class is not accurately measurable. We admit that its rate of change is by no means precisely measurable, but we have ample evidence that it does diminish. That evidence is available through introspection and through observation of the market place. In fact, the existence of diminishing marginal utility is so well established in economic thinking as to make unnecessary its demonstration here. Because of the fact of diminishing marginal utility, we confidently conclude that some form of progressive taxation is more just than is proportional or any form of regressive taxation. The choice between proportional and progressive taxation is therefore a choice between certain injustice and uncertain justice. And the uncertainties in progressive taxation can in a measure be mitigated by amendment after observation of the effects of the rate schedule upon various income classes.[13]

We thus conclude that taxation for revenue purposes should, for reasons of fairness among taxpayers, be at progressive rates. This follows from our analysis of relative burdens in terms of the sacrifices involved in turning spendable income over to government. But this holds only of taxation *for revenue purposes.* Our definition of taxes contemplates revenue purposes only when it defines them as "contributions . . . to defray the expenses incurred in the common in-

[13] Were utilities accurately measurable, new fiscal-philosophical problems would arise. If we could measure and compare sacrifices with reasonable exactness, we should have to decide whether *sacrifices* should be equal, proportional, or progressive. Equal sacrifice (which we have taken as our standard in this chapter) requires progressive taxation; proportional sacrifice would require steeper progression, and progressive sacrifice would require still steeper progression. (*Cf.* Hugh Dalton, *Principles of Public Finance*, London, Routledge, 1932, Chapter 9.) Dalton suggests the alternatives of equal sacrifice, proportional sacrifice, minimum sacrifice (in which B pays all the taxes until the marginal utility of his income is equal to that of A), and "leave them as you find them" (where the degree of inequality of incomes after taxes is the same as before taxes). Such excursions into the rarefied atmosphere appear to the writer unwise in this book in view of the basic inadequacy of our flying instruments.

terest of all." But our short discussion of taxation for sumptuary purposes indicated that taxation might not be used primarily to defray expenses of government but to curb or to encourage private expenditure. Sumptuary taxation reflects the subordination of the revenue purpose to the control purpose; it implies that on many occasions the principle of fairness in taxation gives precedence to a superior objective.

DISTRIBUTION OF BURDEN IN SUMPTUARY TAXATION

There is no "theory" of sumptuary taxation distinct from the theory of the particular control function itself. If taxation is used to raise the price of a particular good (liquor, for example) with the purpose of discouraging consumption, the basis of allocation of the burden is simple. The person taxed is the person whose potential consumption is to be discouraged. The tax must be so high as actually to discourage consumption, without reference to its revenue aspects. Obviously, in such a case, the more effective the tax weapon in accomplishing its sumptuary purpose, the less effective it is as a revenue measure. And if the commodity were taxed out of existence there would be no tax burden at all.

In the more general sense of sumptuary taxation—taxation to remove spendable or hoardable funds from the market—the theory of the tax is likewise the theory of control. It is not a question of "fairness" in the usual tax sense of the term, but a question of expediency. The burden of such taxation is not a necessary evil arising out of the need for revenue, but the means to a desired end. That is, stabilization of national income at a high employment level requires that income be taken from certain persons. The "burden" is therefore intended as the prime immediate objective of the tax, and the usual questions of fairness in distribution of the "burden" cannot arise.

We have taken the position that an irreducible minimum of taxation will occur in all phases of the cycle. Although when anticipations are low or falling there should be major tax reductions, taxes will not at any time fall to zero.[14] This means that throughout the

[14] That is, taxes as a whole. Individual taxes can, and possibly should, fall to zero—unemployment compensation taxes, for example.

cycle some basic level of taxes for revenue will be maintained. When anticipations are rising the economy can stand heavier taxation for revenue purposes, in order to provide for debt retirement. In all of this taxation for revenue purposes the question of ability to pay should be the paramount consideration in allocation of burdens.[15]

But beyond the revenue aspects of taxation, use of the tax tool for general sumptuary purposes is contemplated on a major scale. There are two types of such use which will be important. The first is heavy taxation when the full employment level of income is closely approached. Here the objective is to remove those spendable funds which threaten to push investment and/or consumption spending beyond the limit of physical production, thus promoting inflation.[16]

The second general use of taxation for promoting the proper level of income may occur when it is desired to *maintain* over a long period a full employment level of production. We have given no previous attention to this matter, although it is frequently assumed to be the major use of fiscal policy. If we can assume that the desired level of employment has been reached, and if thereafter the only tendency we are forced to counteract is a mild pressure toward less than full employment taxes must be directed particularly to hoards, so as to "keep the income circuit closed." [17] We shall not categorically deny that such circumstances may obtain, but it implies more inherent stability at the prosperity level than our economy has demonstrated. What it actually relies upon is the elimination of departures from the full employment level by a tax which transfers private hoards to government, and thus puts these funds into the income stream again. But hoarding which results from a turn of anticipations downward is likely to be hoarding with a purpose, and taxation of these

[15] Even within this basic level of taxation for revenue some taxation for discouragement of purchase of certain goods and discouragement of certain practices will probably be found. But such sumptuary taxation is of very minor importance.

[16] If the inflationary pressure is really serious it may be desirable to tax very heavily and to use the funds so procured to build up the treasury balance. This is treasury hoarding. The normal use of these surplus funds would be to retire debt, but this may return the funds again to the market.

[17] This seems to be the main thesis of Stuart Chase, *Where's The Money Coming From?*, New York, Twentieth Century Fund, 1943.

purposeful hoards may well generate further decline in anticipations, encouraging increased hoarding to take the place of those taxed away. It is on these grounds that a preference is established for deficit spending rather than taxation of hoards when anticipations show a tendency toward decline. We do not rule out, however, the possibility of taxing hoards at the top of a particular cycle. But at the same time we must point out that it is quite likely to be an ineffective instrument, and may help to create precisely the situation which it is desired to avoid.[18]

What can we conclude with respect to the proper principles upon which to distribute counter-cycle tax burdens? The principle of expediency (if, indeed, it can be called a principle) will be dominant. That is, the major tax measures will possess large elements of elasticity, making possible quick and effective increase or decrease in tax burdens upon those segments of the economy whose disposable income after taxes is to be decreased or increased. This implies primarily a ready adjustability of tax rates, but may at times imply the removal or inauguration of whole tax measures.[19]

The proper allocation of tax burdens under a counter-cycle program will at any time depend upon the particular objectives to be accomplished. If the objective is an encouragement of investment, a lightening of tax burdens upon the income from risk capital is indicated. If encouragement of consumption is desired, reduction of taxes on lower incomes (and of course on consumption goods) will be desirable. The important point to be kept in mind is that conditions to be combated will vary at different times. The tax measures which provide for counter-cycle allocation of burden will thus lend themselves to expedient application to the circumstances.

[18] The proposal to tax hoards has more appeal in terms of a high income, "mature" economy than of a dynamic, expanding economy subject to violent cyclical fluctuation. For in the former case hoarding is a perennial problem of low propensity to consume, and a good case can be made for a high governmental standard of expenditure for consumption. Let us not overlook the fact, however, that the mature economy is also subject to cyclical fluctuation; it is not one which tends toward permanent, static equilibrium at (say) an income level of 90% of full employment. If it were, the instrument of taxation of hoards would be an attractive one indeed.

[19] Excess profits taxes offer real opportunity for periodic use when a rising profit cycle threatens overexpansion.

SUMMARY

In preparation for consideration of particular tax measures, we have considered the general foundations upon which the tax system as a whole should be built. We have noted that taxation for revenue purposes cannot utilize generally the principles of benefit and cost in determining the proper distribution of burdens among individuals. The reasons are that benefit and cost cannot themselves be reasonably determined on an individual basis, and if they could, many important governmental functions would necessarily be discontinued.

The principle of fairness among contributors must be approached in terms of comparative ability to pay, which is, in turn, measured by subjective sacrifice. If the ideal is equality of sacrifice by taxpayers, the principle of diminishing marginal utility of income demonstrates that such equality can be attained only through progressive taxation. Although we cannot measure utility on an objective comparative basis, and thus cannot arrive at the exactly proper rate of progression by the slide rule, the field for play of experimentation and common sense is considerably narrowed. Our first pillar in construction of a sensible tax system is thus the principle of ability to pay, which ability progresses more rapidly than does income.

The second pillar is that of relation of the tax system to the desired level of employment. The principal necessary ingredient of such a tax system is flexibility, or ability to adjust quickly to changing requirements without violent overhaul. These two pillars upon which a sensible tax structure rests do not always complement one another. For equality of sacrifice is not always the base upon which sumptuary taxation fits. The inflationary pressure may work through consumption (as in an immediate post-war period), or the removal of taxation from high incomes may be required as incentive to investment in a period of recession. In both cases the principle of equality of sacrifice gives way to the sumptuary principle.

RECOMMENDED READINGS

Meyers, A. L., *Modern Economics: Elements and Problems,* N. Y., Prentice-Hall, 1941, Chapter 27.

This elementary textbook discussion of the principles of taxation can be highly recommended.

Dalton, Hugh, *Principles of Public Finance,* Tenth edition, London, Routledge, 1939, Chapter 9.

A realistic and penetrating analysis of the problems in tax burden allocation on the assumption that equity among taxpayers is desired.

Lutz, H. L., *Guideposts to a Free Economy,* N. Y., McGraw-Hill, 1945, Chapter 9.

In opposition to progressive taxation, by one of its very few articulate opponents. Reprinted in Groves, *Viewpoints on Public Finance,* Chapter 8.

CHAPTER 13

TAX INCIDENCE AND OTHER EFFECTS

In Chapter 12 we pointed to two fundamental facts which must be borne in mind in any intelligent discussion of the results of taxation. The first is that all taxes eventually are paid from the streams of individual income. This led us to the conclusion that so far as possible the tax base should be individual income. Any alternative tax base is certain to be a less reliable measure of the income from which taxes are paid. The exceptions to this rule arise out of sumptuary taxation, where the control function may require more limited and specialized tax bases.

The second fundamental fact to which we referred was that the person upon whom the tax is originally imposed is not necessarily the person who bears its burden. This being the case, tax theory must offer conclusions as to who finally bears the burden resulting from imposition of a tax. Unless this is done, undesired results will frequently be obtained. It is the purpose of this and the following chapter to analyze in general terms the conditions under which the person on whom the tax is originally imposed can transfer its burden to others.

THE MEANING OF "INCIDENCE" AND OF "OTHER EFFECTS"

The imposition of a tax may set in motion a whole series of effects and adjustments to those effects. Analysis of the effects will demonstrate that they are of different orders, and it

will therefore be useful to distinguish the different orders as far as possible. A tax is imposed upon a person who becomes the *subject* of the tax because it is from his income that the tax is originally paid. This may occur because he owns taxed property, buys taxed goods, or for other reasons which the reader familiar with existing taxes can add. The subject of the tax may bear the burden himself, but the assumption of the burden will reduce the amount of his income available for purchases in various lines, causing a decline in demand for products in those lines. The chain of effects following this we cannot pause to catalogue at this point. On the other hand, the subject of the tax may be able to transfer the burden (partially or wholly) to someone else, who may be able to transfer a part of it further on. In the process of transfer many ancillary effects can be noted.

The process of transferring the burden of the tax from one person to another is known as *tax shifting*. The *incidence* of a tax is upon that person who cannot shift it further. Thus all possible tax shifting is completed before its incidence is determined, and the incidence of the tax is upon that person who finally bears its burden. But we must distinguish the burden of the incidence from two kinds of other burdens: those created in the process of shifting the tax and those following from the fact of incidence itself. To take an example, suppose that a tax is imposed upon a commodity. The seller pays the tax to government directly, but then proceeds to shift its burden to the buyer by adding the amount of the tax to the price of the commodity. If it is not shifted further, the incidence of the tax (the financial burden of the tax itself) is imposed upon the buyer. But so far we have traced only one type of effect of the tax—its incidence. There are two other types of effects (burdens) which are evident in the example. The first type results from the fact that the seller has increased the price, and it is to be anticipated that his sales of the product will decline somewhat. This means that his net income from sales may well decline, and/or the incomes of the factors producing the good will decline. Clearly the process of shifting has created real burdens other than that of incidence upon the buyer. These burdens we may refer to as "those created in the process of shifting the tax." The second type results from the fact that the

financial burden of the tax (its incidence) immediately reduces the available income of the person on whom the incidence rests. His expenditures for other goods may well decline, with consequences to the factors producing these other goods. These we refer to as burdens "following from the fact of incidence itself."

Realizing that there are several kinds of effects of taxes, we shall distinguish *incidence* from all *other effects*. When we discuss incidence we have in mind the question of who finally sacrifices the amounts which are paid to government. We shall be interested in where the money comes from which government receives; *i.e.*, who actually transfers income to government. This gives us a manageable segment of the effects of taxes, to which we may apply well-known analytical tools of economics. But the segregation of incidence from the other effects is an analytical technique; it is not a denial that other effects result or that the burdens of these other effects are not in fact real burdens.[1]

THE CONDITIONS OF TAX SHIFTING

The Role of Price in Tax Shifting As we turn our attention to tax incidence, we are interested in determining the conditions under which the original payer (subject) of the tax can reimburse himself by shifting its amount to others. If he can reimburse himself only partially the incidence of the tax will be divided between him and others. The more closely we examine the conditions of tax shifting, the more clearly we see that shifting may occur only in connection with a price transaction. For in our economy there is no vehicle—except gifts—for reimbursement other than prices. By prices, of course, we mean not only the prices of goods and services but the prices of the factors of production (wages, salaries, interest, rents) as well. Thus, if a tax is shifted, some price will be changed to include the tax; *i.e.*, it will be different from what it would have been if the tax had not been levied. This change in price may, how-

[1] We have mentioned specifically as "other effects" those incident to the process of shifting and those following from incidence of the tax. Many more could be mentioned, such as the attitude of the citizen toward his government, the integration of industry to minimize burdens, the location of residence or situs of property, etc.

ever, be accomplished by a change in quality; the quality of the good may be altered while the price remains as before.

The inclusion of shifted taxes in price is a well-known market phenomenon, and constitutes a popular and reasonable argument against those "hidden" taxes which are readily shiftable.[2] In general, other things being equal, there is strong argument for promoting awareness of tax payment. It makes the taxpayer conscious of his contribution to government, and it removes from the seller the onus of responsibility for price increases due to taxes. Interesting attempts to make the buyer aware of taxes shifted to him are apparent in the gasoline tax, where price is typically calculated on price signs as basic price plus federal tax plus state tax; and in many sales taxes, where the law encourages either collection of the tax separately at the end of the transaction or the posting of prices exclusive of taxes.[3]

Forward and Backward Shifting The shifting of a tax will involve a change in the price of something from what it otherwise would have been. When the tax is shifted *forward*, the price which constitutes the vehicle for shifting will increase. If completely shifted the price will be higher than it otherwise would have been by the amount of the tax. We must emphasize "higher than it otherwise would have been" because the very increase of price will probably reduce the quantity sold, and it is quite likely that—under existing conditions of supply and demand—if the smaller quantity had been sold when the good was untaxed, the price would have been lower or higher than it actually was. We shall have occasion to demonstrate this point in the following chapter.

[2] The terms "direct" and "indirect" taxes, which have cut such a figure in court decisions in the past, are finally distinguishable in meaning only in terms of shiftability. Direct taxes are not shifted, while indirect types are. The decline in use of these terms can be accounted for by inability to make such broad generalizations with respect to many tax measures. As we shall see, a given tax may be shifted under certain conditions, while under other conditions it may be shifted only partially or not at all. To denominate particular taxes as direct or indirect is to oversimplify the question of incidence.

[3] On the other hand, there have been occasions due either to intent to mislead or to ignorance, when propagandizing efforts to emphasize the tax element in price have included both shifted and non-shifted taxes. Clearly the price of a pair of overalls includes many shifted taxes on its production, but many taxes imposed upon makers or handlers are not shifted and thus do not enter into price.

When a tax is shifted *backward*, the price which constitutes the vehicle for shifting will decrease as compared with what it would have been. There are some situations in which the buyer of the product upon which taxes will be levied at a subsequent stage can shift a part or all of it backward to the seller in the form of a lower buying price. It is essential to distinguish real backward shifting from inability of a seller to shift the tax forward. The distinction rests upon the fact of who is the original subject (payer) of the tax. Suppose that after the shifting process is completed we find that a part of the incidence is upon the buyer and a part on the seller. To determine whether the tax was partially shifted forward from seller to buyer, or partially shifted backward from buyer to seller, we must know upon whom government originally imposed the tax. If originally imposed upon the seller, we conclude that it was partially shifted forward; if originally imposed upon the buyer it was partially shifted backward.

We shall consider as examples two cases where backward shifting of the general type may occur: unemployment compensation taxes on employers and processing taxes under the old Agricultural Adjustment Act. The taxes which create the reserves from which unemployment compensation benefits are paid under the Social Security Act are originally paid by employers. It is highly unlikely, however, that in the typical case any considerable part of the incidence of these taxes is upon the employer. Some part is normally shifted forward to the buyers of the employer's product, but a typically larger part is shifted backward to the employee in the form of lower wages than would otherwise be paid. When market conditions are brisk and when labor's bargaining power is strong the tendency would be to shift substantially the whole tax forward to buyers. But if demand for the product is not strong and the bargaining position of labor is weak, there will be a strong tendency to shift substantially the whole tax backward to labor.[4] The employer

[4] And if the market demand is weak, as in a depression period for instance, while effective labor organization, government limitations upon wage reductions, or the pressure of public opinion make backward shifting impossible, a substantial part of the tax may be borne by the employer. Under such circumstances the tax eats into already low profit or increases losses, and the employer will therefore be encouraged to discharge labor. If this occurs,

against whom the tax is assessed thus is presented with two directions in which shifting may occur. The price of his product to buyers constitutes one vehicle for shifting, while the prices paid to his labor (and other factors) constitutes another. Whether one or the other vehicle is the more available in given circumstances will depend upon the strength of demand for his product and the consequences to him of attempts to reduce wages. If both vehicles are unavailable he will bear a part of the tax himself.

Under the Agricultural Adjustment Act of 1933, producers of various agricultural products were encouraged to pledge a reduction in production in return for governmental benefit payments. The fund from which benefits were to be paid was contributed by special taxes upon the processors of the commodities to be controlled. These taxes were thus originally paid by processors. The theory was that processing taxes would be shifted to consumers of processed agricultural products, and the justification for such an arrangement lay in the reasoning that, since consumers had long benefited from the low agricultural prices which worked hardship upon the farmer, relief of the farmer should be largely carried by consumers. A study by the Bureau of Agricultural Economics in 1937 drew the following conclusions with respect to incidence of these taxes: [5]

1. No processor of any of the commodities finally bore any appreciable part of the tax.
2. No distributor of any of the commodities finally bore any appreciable part of the tax.
3. When the demand for the processed good was relatively inelastic

the incidence of the tax is not upon the laborer so disemployed. It is not a question of *incidence* at all, but a case of other effects. For if labor is disemployed the employment taxes fall—*i.e.*, the employer upon whom the incidence would otherwise largely fall avoids the tax by discharge of labor. And obviously taxes avoided are not paid by anyone, and thus there is no question of shifting or incidence of non-existent taxes. Nevertheless, in our example workers have become unemployed because of the tax. This unemployment is obviously an effect of the tax measure, but is not a matter of its shifting or incidence.

[5] Bureau of Agricultural Economics, *An Analysis of the Effects of the Processing Taxes Levied Under the Agricultural Adjustment Act*, Washington, 1937, pp. 4–7. This study represents an excellent example of the empirical approach to tax shifting and incidence.

(*i.e.*, wheat, rye, cotton products, corn products, cigarettes and chewing tobacco), the major incidence was upon consumers. When demand for the processed good was relatively elastic, or subject to special control (*i.e.*, hog products, cigars, smoking tobacco, and sugar), the tax was not shifted forward in appreciable degree.

4. The major part of the taxes on hog products, cigars, smoking tobacco, and sugar was shifted backward to farm producers.

The processing taxes demonstrate clearly the possible directions in which taxes may be shifted. Whether a tax is shifted forward or backward depends upon the relative strength of the resistance to transfers of the burden. The very fact of low agricultural prices due to overproduction testifies to the weakness of the farmer's position in resisting backward shifting. Those processed commodities for which consumer demand was relatively elastic found greater resistance to forward than to backward shifting, while those goods sold under inelastic demand conditions found less resistance to forward shifting.[6]

A special, though not unusual, type of backward shifting is what is called *tax capitalization*. It occurs in cases where the good is a durable good, and thus is subject to a series of successive annual taxes during its lifetime. If the whole series of future taxes on the good is to be shifted backward at time of purchase, the future taxes must be capitalized and deducted in a lump sum from price offered.

[6] A relatively elastic demand is one in which a small change in price will meet with a relatively large change in quantity taken. In such a case, given a quantity to be marketed, forward shifting of the tax (with consequent price increase) would mean a considerable unsold surplus, and the farmer's position would be relatively weak. The whole quantity of his products ready for market would not be taken by processors. A relatively inelastic demand is one in which a given change in price meets a relatively slight change in quantity taken. Here the conditions are reversed, and consumer defenses against forward shifting are weak since price increases are accompanied by little shrinkage of the market. (If under conditions of inelastic consumer demand the processed product is sold under highly monopolistic conditions, it is presumed that the consumer price is already at a maximum, and consumer demand, though inelastic, will strongly resist further price increase. In such a case it is the expected outcome that considerable backward shifting will occur and quite likely some considerable absorption of the tax by processors.)

For there will be no later opportunity—no price vehicle—for backward shifting. The only difference between backward shifting of the taxes on a durable good and backward shifting of the tax on a non-durable good is in the computation of the dollar amount to be deducted from the price offered. In all cases of backward shifting the buyer pays the tax to government, but the seller bears the burden of incidence.

Suppose I were to consider purchase of a piece of agricultural land, and my estimates as to average annual income and expense were as follows:

Value of gross annual product	$5000
Total cost of production, excluding property taxes	3500
Net income before property taxes	1500
Annual property taxes	300
Net income	$1200

By purchasing this piece of land, therefore, I would be making a capital investment which I calculate would return me net $1200 per year. If I am willing to invest my savings at a rate of return of 5 per cent per year, I would be willing to pay $24,000 for the land.[7] The annual net return of $1200 would then be the required 5 per cent on my investment, and I could pay no more than $24,000 for the land unless I either revise my estimate of probable net income upward or my required rate of return downward.

But suppose there were no property taxes anticipated. According to the calculations, net income per year would then be $1500, and I could afford to pay $30,000 for the land, still receiving 5 per cent on my investment. Thus, because property taxes are estimated to take $300 yearly, the price I am willing to pay for the land is $6000 less than it would be if no taxes were anticipated. And $6000 is $\frac{\$300}{.05}$, or the capitalized value of the annual tax. Because the tax has reduced the price which I am willing to pay by $6000, the tax of $300 per

[7] The capital value of a "perpetual annuity" is: $\frac{\text{annual net income}}{\text{rate of return required}}$. In this case: $\frac{\$1200}{.05} = \$24{,}000$.

year for all time has been shifted backward to the seller. Of course the seller may not sell the land to me because someone else offers a higher price. Any higher price offered, however, must be due to (1) an estimate of higher net income before taxes than $1500, and/or (2) a lower rate of return on investment than 5 per cent and/or (3) an estimate of annual taxes lower than $300 per year. But whatever the alternate buyer calculates these figures to be, the tax will be capitalized and the price offered will on that account be less than would have been offered if no taxes were anticipated. Unless they can shift the new taxes forward, current owners of land will bear the incidence of any additional taxes imposed subsequent to or unforeseen at the time of purchase.[8]

We have pictured tax capitalization in terms of a simple example. There are, however, wide applications of the same principle. Capitalization occurs at the time of purchase of real estate, and of many durable consumers' goods. It may also occur on the occasion of purchase of investment securities and durable producers' goods.

Of particular interest is tax capitalization in connection with the purchase of investment securities. The purchaser of a share of corporate stock will determine what he can pay by a calculation exactly like that in our agricultural land example. He will obviously capitalize the tax unless he is willing to pay for an opportunity to pay annual taxes. This is particularly true if he buys for investment (to receive income), but if he buys for speculation he must recognize the future level of income taxation (corporate and personal) as being an important determinant of the price at which he can sell in the future.[9]

[8] Land used for business purposes generally offers opportunity to shift new and unanticipated property taxes forward as a part of the price of the product. Land used for consumption (*e.g.*, residential) purposes offers no such opportunity; taxes not capitalized and thus not shifted backward at the time of purchase of the land have their incidence upon the owner.

[9] When the tax is so general as to apply to all incomes, investment or otherwise, the total effect may be to lower generally the rates at which individuals are willing to invest. For if all income is subject to the same rate of taxation, given the propensity to save, the effect will be to generate a general willingness to invest at lower return after taxes. Considerable saving does occur regardless of the income available from investments. Given savings, there is little choice under general taxation as to whether one purchases securities whose income

We are dealing here with a principal reason for exemption from taxation of the income from government bonds.[10] For if government bond coupons are tax-exempt there is no tax capitalization and the capital value of the bonds is higher than it would be if taxed. This is particularly true when the income from other investments is taxed; government bonds are given peculiar price support in the market. The consequence would be that with the tax exemption advantage the government bond would be strong—other things equal—even at lower rates of coupon interest. From the treasury's point of view the advantage has long been questioned, for when income taxes are steeply progressive and government bonds are largely held by the high income classes, the tax loss to the treasury from tax exemption may be greater than the gain in lower interest. For this reason the trend has been gradually away from tax exemption. But for bonds of the savings type, aimed at small purchasers, it is probable that there is net gain from exemption. Here is a case where the fact of tax capitalization becomes an important determinant of policy.

We have seen that there are three distinct, though not mutually exclusive, possible incidence results when a tax is imposed. It may be shifted forward from seller to buyer in the form of an increased price. Capitalization does not enter into forward shifting because when the seller disposes of title to the thing sold he retains no future tax liability related to it. The tax may be shifted backward from buyer to seller in the form of a decreased price. When purchase involves non-durable goods or services the amount of the single tax payment establishes the maximum amount to be shifted. If a durable item is purchased the amount which the buyer attempts to shift backward is the capitalized value of future tax obligations related to ownership of the item. The person upon whom the tax originally falls will attempt to shift it either forward or backward. He can do neither if there is no price which can be used as a vehicle for shifting the tax, and the incidence will be upon him. If vehicles exist for

is taxed. Thus, the long-run effect will probably be a lower required rate of return to bring forth investment. If such occurs, prices of investment securities may not permanently fall in spite of tax capitalization, prices being supported by a lower effective rate of return.

[10] Also exemption of the bonds themselves from property taxes.

either forward or backward shifting, he will follow the path of least resistance, which will be measured in terms of all the foreseeable effects upon him which shifting in either direction would set in motion. Obviously, then, some taxes are not shifted at all, some are shifted forward, some backward, and in the cases of some the incidence is divided. The state of the market will, in the short run, be the important determinant of the degree and direction of shifting. We proceed in the next section to a consideration of the shiftability of general categories of taxes.

GENERAL CATEGORIES OF TAXES: ANALYSIS OF SHIFTING AND INCIDENCE

We have seen that taxes can be shifted, either forward or backward, only through a change in price. Some part of the tax thus becomes either an addition to price (forward shifting) or a deduction from price (backward shifting), and taxes thus take their place alongside other price determinants in the market. It is therefore necessary to analyze the process of price determination if we wish to draw conclusions as to the shiftability of particular taxes.

We shall not, however, analyze the incidence of specific tax measures in this chapter. We shall be interested here in determining the incidence of general categories of taxes, and in later discussions of particular tax measures we shall fit the tax under discussion into the categories analyzed here. We distinguish the following categories of taxes in our present analysis:

1. Taxes imposed on net income.
2. Taxes imposed on property.
3. Taxes imposed on production or sale of goods.

1. *Taxes Imposed on Net Income* A tax imposed on business net income is typically not shifted. This is demonstrable in terms of the market factors which give rise to business net income. Evidently the magnitude of net income to a firm is a function of both gross income and of total cost. The firm's decision as to the optimium price-quantity combination of sales must be made with a view to maximizing the spread between gross income and total cost. In

making this decision, however, it is recognized that the price which the market will pay for each unit of varying quantities of product is not subject (at least in the short run) to control by the firm. The market demand schedule facing the individual firm is accepted as a fact, and the firm's choice lies in the offering of a greater or less quantity for sale. Likewise, many of the elements of cost involved in the production of more or less goods for sale are determined externally; *i.e.*, the firm must pay going rates of wages and interest and going prices for its materials. But given these unit costs, the firm may choose what quantity it will produce for sale. We conclude, therefore, that given the market demand, existing prices of the factors of production, and the technical processes existent, the firm's choice is one as to the quantity of sales which will maximize its net income. To determine that optimum quantity it is necessary to know how the relation between gross income and total cost behaves under conditions of varying size of output.

The typical market condition is that in which the firm's product is more or less specialized, or "differentiated" in the minds of buyers from the products of competing firms. Although there is more or less possibility of substitution of A's product for B's, the product of each has some characteristics distinguishing it from the other. The significance of this is that if A raises his price he will not lose all of his sales to B and other sellers, while if he lowers his price he will not attract all of the customers of B and others. A can sell more units at a lower price, but not infinitely more. This means that the demand curve facing the individual seller slopes downward from left to right. The firm is then selling under conditions which economists call "monopolistic competition."[11] If an increase in price results in little defection of his customers to other sellers, he is in a position approaching pure monopoly. If an increase in price results in major transfer of customers to other sellers, his position approaches pure competition. Thus, the more monopolistic the position of the firm, other things equal, the steeper the downward slope of the demand facing it.

From the firm's knowledge (estimate) of what the market will

[11] The special case of "pure competition" will be considered later in this chapter.

pay for varying quantities of its product, it is possible to calculate the *marginal revenue,* or the amount which an added increment of sales will contribute to increase the total receipts. Marginal revenue is thus determined from demand. If a larger quantity can be sold only at a lower price per unit, marginal revenue shows whether at any point an increase in quantity sold will increase gross income, and by how much. If 1000 units can be sold for one dollar each, while 1100 units can be sold for $0.95 each, gross income in the first case will be $1000 and in the second $1045. The addition to the total income from sale of 1100 units rather than 1000 units is thus $45, and marginal revenue is $45 (when increments are measured in doses of 100 units).

But although marginal revenue tells the firm what quantity of output will maximize its *gross* income, marginal revenue alone cannot tell what quantity will maximize *net* income. For cost, the other determinant of net income, must be brought in. And for our present purposes cost can usefully be measured only in the marginal sense. By definition the fixed costs of a firm are at any given time independent of the quantity of output; the variable costs do vary with quantity of output. And if variable costs are measured marginally we get a picture of the *additions* to total cost of production resulting from an increment to output.

The firm which is choosing its optimum output (to maximize net income) will use the relations between marginal revenue and marginal cost. If by sale of an additional quantity the addition to total revenue is greater than the addition to total cost, net income will be increased. On the other hand, if the addition to total cost is greater than the addition to total revenue, sale of an additional quantity will reduce net income. Thus, given the conditions of demand and cost facing the seller, net income is maximized at that quantity of output where marginal revenue and marginal cost are equal. Let us set up a simple numerical example for a firm showing the variables which we have been discussing.

It will be seen from the table that, if the firm produces 300 units instead of 200, the addition to total revenue will be $8 per unit or $800 for the increment of 100 units, while the addition to total cost will be $1.33 per unit or $133 for the incremental block of 100 units.

TABLE 24 Marginal Revenue and Marginal Cost of a Hypothetical Firm

1 QUANTITY OF OUTPUT	2 DEMAND PRICE PER UNIT	3 TOTAL REVENUE	4 MARGINAL REVENUE PER 100 UNITS[a]	5 MARGINAL REVENUE PER UNIT[b]	6 MARGINAL COST
100	$10	$1000	$1000	$10	
200	9	1800	800	8	$1.00
300	8	2400	600	6	1.33
400	7	2800	400	4	1.67
500	6	3000	200	2	2.00
600	5	3000	0	0	2.33
700	4	2800	—200	—2	2.67
800	3	2400	—400	—4	3.00
900	2	1800	—600	—6	3.33
1000	1	1000	—800	—8	3.67

[a] On the basis of a marginal increment of 100 units.
[b] Average unit marginal revenue for increments of 100 units.

The firm will thus receive a higher *net* income (by $667) by selling 300 rather than 200 units. At an output of 500 units we find that production of the last 100 units has made the same contribution to total revenue as to total cost, and production beyond 500 units will add more to total cost than to total revenue.

When the data of Table 24 are plotted on a diagram we see the same picture in a form which may lend itself to clearer view of the calculation. The point at which marginal revenue and marginal cost are equal indicates the quantity at which the seller maximizes his net income. Any unit of a quantity less than 500 units will, if sold, contribute more to gross income than to total cost, and thus contribute something to net income. Any unit in excess of 500 will add more to total cost than to gross income, and thus reduce net income below its maximum. We conclude, therefore, that this firm will maximize its net income by selling 500 units at a price of $6.00 per unit.

We have not mentioned the magnitude of total costs, which will of course be an important determinant of the magnitude of net income. The reason is that, no matter how great the fixed costs (which are not included in the marginal measurement of cost), the firm should sell 500 units. If fixed costs are so great that average

total cost per unit is higher than the price, it is evident that a net loss will be incurred. Even so, that net loss is minimized at sales of 500 units at $6 per unit, for any unit less than 500 will add more to total income than to total cost and any unit over 500 will add more to total cost than to total revenue.

We shall return to the analysis of price under monopolistic competition as summarized in the previous paragraphs as we proceed

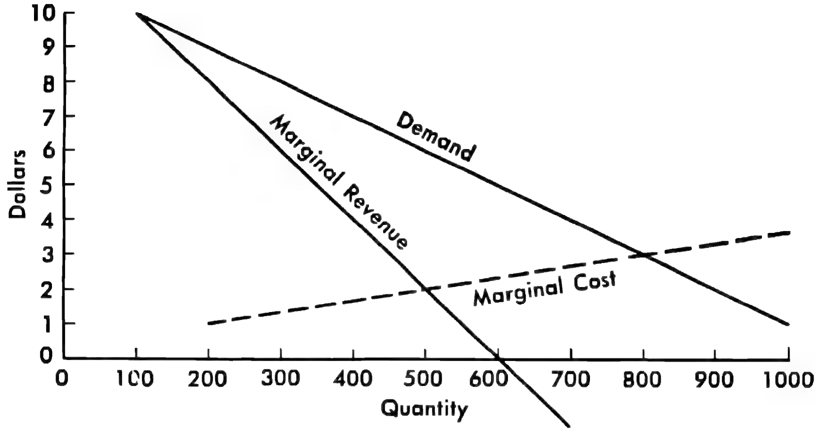

FIGURE 4 [12] The Firm under Monopolistic Competition

with discussion of tax incidence. But what about the incidence of a tax on net income, with which this section is principally concerned? It is well to keep in mind two facts concerning the net income tax. The first is that the tax is payable only when there is net income, and the amount of the tax is proportional to or progressive with the size of net income. The second is that some part of additional net income received is always retained after taxes. Thus, there is always more net income remaining after taxes from a larger than from a smaller income before taxes. With these facts in view we raise the question whether the firm subject to tax will be encouraged to sell a smaller quantity than that indicated by the inter-

[12] Plotted from Columns 1, 2, 5, and 6 of Table 24.

section of marginal revenue and marginal cost in order to obtain a higher price. If it does so, it lowers net income before taxes, pays lower taxes, and has less income remaining after taxes. Clearly, then, the true net income position of the firm is made worse if it reduces its quantity sold, and there is not good reason to expect either price or quantity to change after the tax is imposed.[13]

When there is a respectable degree of competition among sellers in the market it is reasonable to assume that some sellers are selling at prices close to their higher costs, and are making very small profit. Such firms pay only very low if any net income taxes. An attempt by more profitable firms to shift the income tax forward in the form of increased prices for their brands would encourage a transfer of buyers from their brands to those of the less profitable firms which make no effort to raise their prices. The consequence to the formerly prosperous firms may well be a major reduction in quantity sold, which means a major reduction in net income. How serious this result will be depends upon the elasticity of demand, which is partly a function of the degree of competition. The existence of marginal firms is thus an added obstruction to price increases, though the central point is still that the firm is interested in the magnitude of its net income after taxes and not in the height of its price.[14]

How broadly the tax is applied may have some long-run effect upon its shiftability. The breadth of applicability has two aspects: (1) the breadth of geographical area covered by the tax, and (2) the

[13] There may be instances where income is so large that progressive rates are already high on the last units of income, and the firm is not encouraged to take on added production. In such a case the income remaining from additional production is not, after taxes, sufficient to justify the effort required to increase production. Cases have been cited where motion picture actors have refused to make an additional picture for this reason. Such a case is a special one, however, of a single buyer and a single seller, and applies (if at all) in the infrequent very high income brackets. And in the last analysis is it not a clear admission that the income tax cannot be shifted? Else why should not the additional picture be undertaken at a fee to the actor which will leave him adequate remuneration after taxes?

[14] We mention in passing the bare possibility that tax pressure on income remaining may encourage the firm actually to move its quantity sold back to the intersection of marginal revenue and marginal cost. But this assumes that the knowledge of its market and its costs is sharpened by the tax, or that maximum net income was not previously its objective.

extent to which incomes of whatever source are subject to taxation. If the tax were narrowly applied (in either sense), the long-run possibility of shifting would be increased, although in the short run the tax would not be shifted. For if the non-shiftable income tax is applied only to some incomes (those within a state or those within an industry) there is opportunity for more profitable use of the factors of production in other localities or in other lines of production. A gradual shift from the production of taxed incomes to the production of untaxed incomes would (other things equal), by concentrating market demand upon the products of fewer taxed competitors, increase the demand for their products, and thus probably create higher prices. Thus, for the remaining firms, long-run forward shifting of some part of the tax may occur. However, this takes time, and taxes (particularly those temporarily of limited application) are but one of the changing variables in the profitability of enterprises. For this reason even long-run shifting of net income taxes is unlikely.

Our treatment has so far run in terms of monopolistic competition. To complete the picture we may consider the incidence of a net income tax on the assumption that the firm operates in a purely competitive market. By pure competition we imply that the firm offers for sale a product which is wholly undifferentiated from those of other firms—*i.e.*, there is nothing to attach a buyer to A's product rather than to that of B, and that there are so many firms selling this undifferentiated product that no one of them by individual action can measurably affect the whole market supply. Clearly the condition of pure competition is an unlikely one in real life. But under such conditions the market price would be established at the intersection of market demand and market supply, as shown in Figure 5. The price P ($5) "clears the market"—*i.e.*, the quantity which all sellers taken together will offer at that price is identical with the quantity which buyers will take at that price. Any attempt of a seller to sell at a higher price would find no takers, since his product is not preferred to that of any other seller, and no seller will attempt to sell at a lower price because he can get $5 for every unit of his production.

How, then, does this situation appear to the individual seller

FIGURE 5 The Industry under Pure Competition

under pure competition who is anxious to maximize net income? The market sets the price, and his only choice concerns the quantity of his output to be offered at that price. Thus, the demand facing the individual seller is a horizontal line (see Figure 6) at the level of

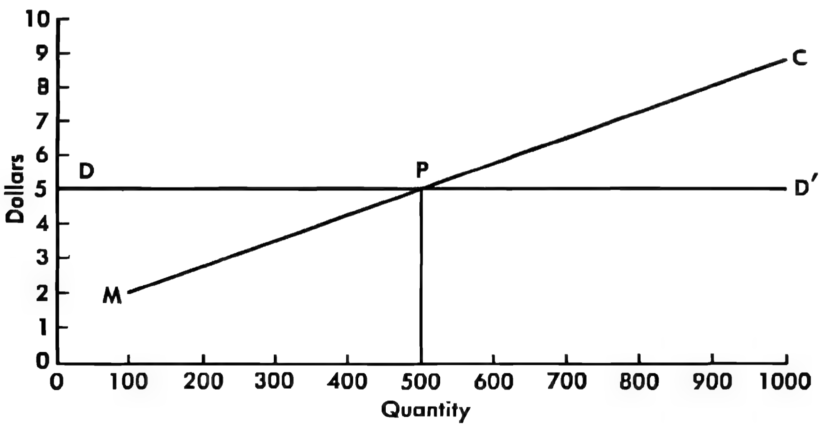

FIGURE 6 The Firm under Pure Competition

$5 per unit. Since the individual seller is so insignificant to the market, no artificial restriction of his output can raise the demand price and no possible expansion of his output can lower it. DD′ in Figure 6 is not only the demand facing the individual seller; it is also the curve of his marginal revenue, for each additional unit sold at a price of $5 will add that much to his gross income. MC is the firm's marginal cost. For any quantity less than 500 units, the contribution to gross income of any unit is greater than its contribution to total cost. For any quantity greater than 500 units, the contribution of the marginal unit to cost is greater than that to gross income. Therefore the quantity of 500 units at a price of $5 per unit will maximize the firm's net income (or minimize net loss).

We may thus draw the same conclusion with respect to the incidence of net income tax under pure competition as we drew concerning the more typical case of monopolistic competition. The tax changes neither marginal revenue nor marginal cost, and therefore changes neither price nor quantity. The tax is therefore not shifted. But what of the long-run effects of this incidence? Will not those firms which, because of the incidence, are reduced to negligible net income after taxes withdraw from the market, thus decreasing total market supply and raising price? The answer must be in the negative if the income tax is general, for nothing is to be gained by diverting the factors of production into other lines of production. Certainly the tax does not make other lines of production more remunerative than before. And further, the amount of the unshifted tax varies directly with the size of net income; the less profitable the firm before taxes, the smaller the tax, and marginal firms (making no profit) pay no net income tax.

By way of general conclusion, since the objective of the business will be to maximize net income after taxes, and since the factors determining optimum output (marginal revenue and marginal cost) do not change with the application of a net income tax, the incidence of the tax is upon the income receiver. Forward shifting through higher price could occur only with a rise in demand or a rise in marginal cost. There is no reason to expect that either would occur *because of the tax.* If the tax were shifted backward to the factors of production, a lowering of marginal cost would presumably occur,

increasing optimum quantity of sales and lowering market price. Shifting of the tax would then occur, as net income after taxes would be greater than it would have been if no attempt at backward shifting had been made. But what reason have we to expect that an attempt at backward shifting would be successful? If the factors could have been obtained at lower prices previous to the tax, why were they not so obtained? We must conclude that the tax confers no power upon the employer to hire factors at lower prices. We adopt, therefore, the commonly held conclusion that taxes imposed on net income are not shiftable.[15]

We turn next to an analysis of the incidence of a tax imposed upon personal net income. If personal net income is received in the form of profits, interest, rents, or royalties, such income is clearly of the business variety, and the tax cannot be shifted for reasons already stated. If personal income is received as salary or wages, it results from the sale of service to an employer. We shall search in vain for opportunities to shift such a tax to the employer in the form of higher salary or wages, unless the tax is of limited applicability and workers are encouraged by the tax to seek employment in an untaxed area.[16] The productivity of the worker is in no wise increased by imposition of the tax, and thus the employer's ability to pay is not improved. And the low-income, tax-free income receiver will usually be found ready to move up the scale into a taxed income bracket, since his net income even after taxes would thus be improved. This competitive role is analogous to the role of the marginal

[15] Not infrequently it is stated or implied that, while a tax on individual net income is not shifted, a tax on the net income of a corporation is shifted to shareholders. This latter is not shifting at all. A dividend is not a price, but a distribution of income to those entitled to it. If the incidence of the tax is upon the corporation, it is *ipso facto* upon the owners of the corporation. Their income from corporate ownership is less that it would have been because their corporation could not shift the tax.

[16] Such a migration of workers could conceivably create a shortage in the taxed area which would result in higher salaries and wages, thus shifting the tax to employers. Under modern circumstances, however, no such significant shift is likely, for the following reasons: (1) the existing combination of circumstances which cause high labor immobility, (2) the fact that such migration would tend to reduce salaries and wages in the untaxed area, and (3) the discouragement to migration inherent in the fact that an untaxed area may not remain so.

producer in strengthening resistance to forward shifting of the business net income tax. It encourages the taxed person to refrain from attempts to shift the tax. We are forced to conclude, therefore, that personal income taxes have their incidence upon the income receiver, and that as a general rule such taxes are not shifted.

SEE END OF CHAPTER 14 FOR RECOMMENDED READINGS

CHAPTER 14

TAX INCIDENCE AND OTHER EFFECTS (*continued*)

GENERAL CATEGORIES OF TAXES: ANALYSIS OF SHIFTING AND INCIDENCE (*continued*)

2. *Taxes Imposed on the Ownership of Property* In discussing the incidence of this broad category of taxes we are confronted by a multiplicity of tax measures and taxed objects. We here use the term "property" in a somewhat inappropriate manner to include both wealth (things) and indications of property rights to things (securities).[1] The justification for this use lies in its similarity in meaning to that commonly ascribed to it in property taxation. For purposes of our analysis, however, it is necessary to distinguish property used in production from property used for consumption. The former, since it is used to produce goods for sale, offers possible opportunities for forward shifting in the form of higher prices for those products. The latter offers no such opportunities.

Suppose a tax is imposed upon the owner of property used by him for purposes of consumption—*e.g.*, a house, residential land, an automobile, or jewelry. There is obviously no available price vehicle for forward shifting. But real possibilities do exist for backward shifting at time of purchase. The examples which we have cited are

[1] It should be evident that taxation of property rights to wealth in addition to taxation of the wealth itself constitutes double taxation of the same stream of income.

all durable consumers' goods, and we may expect capitalization of the tax to occur. For the maximum price which the buyer will pay must be determined by capitalizing a money valuation of expected net utility to be derived yearly, and in the calculation of net utility the tax must be deducted.[2] The price paid for the good thus is less than it would have been if no tax existed, unless through ignorance or lack of foresight the buyer neglects to anticipate taxes.

It is important to emphasize that capitalization reduces the offered price below what it would have been and not necessarily below what it was. In a period of real estate inflation the payment of excessive prices does not mean that taxes are not capitalized. The money measurement of net utility to be derived from home ownership is high. Thus "net income" is given a high valuation and the offered price is high. But the price offered would be higher if there were no taxes on residential real estate, since net utilities would then be higher. It should be evident that taxes represent only one item in price determination; values may and frequently do change as the result of tax changes, but the most marked fluctuations in values are generally due to other causes.

Tax capitalization involves the backward shifting not only of current taxes but of anticipated future taxes as well. If tax anticipations are incorrect, there is no later vehicle available for redress. Thus if anticipations materialize, capitalization at the time of purchase shifts the tax for all time to the seller, and we have the curious consequence of the incidence of future taxes being upon a past owner. If future taxes are less than anticipated at the time of capitalization, there is net gain to the present owner at the expense of the previous owner. If future taxes turn out to be greater than anticipated at the time of capitalization, the incidence of the unforeseen taxes is

[2] The calculation of the net utility to be derived from home ownership, for example, would typically begin with annual cost if the house were to be rented instead of purchased. The rent to be paid would constitute the yardstick; ownership would be preferred if annual cost including interest on investment, depreciation, repairs, and taxes were less than annual rental payments. The utility to the individual of home ownership *per se* might well justify higher annual cost. This consideration obviously affects the comparability of utilities to be derived from a rented as distinct from a purchased home.

upon the current owner, and will remain upon him through capitalization if he sells the property.

A property tax imposed upon the value of a bond, note, or mortgage will typically be shifted backward to the extent of the foreseeable tax. The lender of capital will determine his terms of lending on the basis of some tax expectation. If the tax as estimated for the future were 2 per cent on par value, and the lender were willing to lend at a rate giving him a net return of 4 per cent, the gross rate at which he would be willing to lend would be 6 per cent. Future taxes on his bond, note, or mortgage to the extent of 2 per cent annually will then be borne by the borrower,[3] and any new and unanticipated taxes will be borne by the current holder of the taxed security. This suggests that property taxation of a residence and of the mortgage on the residence is one of the worst forms of double taxation. The residence owner pays a tax upon the land and building, and its incidence is upon him unless the residence was purchased and the tax capitalized at that time. The holder of his mortgage is also taxed, but the second tax is shifted backward to the owner of the residence also. Thus, because of backward shifting it is simply not true, as many states suppose, that ownership of bonds, notes, and mortgages constitutes an ability to pay which can be reached by taxation of intangible property.

Perhaps it is appropriate at this time to remind the reader that we are talking about the incidence of a tax (where the burden of its payment finally rests) and not about the whole range of tax effects. Avoidance of a tax is quite different from its shifting, for in

[3] We reiterate that if such taxes are general, so that all such investments are taxed equally, the tendency may be for interest rates to fall. That is, to the extent that the quantity of saving is independent of the interest return on investment, market interest rates will fall. Thus, the lender referred to above might be willing to lend at 3% net because of an absence of net 4% investment opportunities. The gross rate at which he would lend would then fall to 5%. But this is not an equal division of incidence between borrower and lender; the capitalized tax is still shifted. Furthermore, it seems wise to consider this as backward shifting, even though the lender might be considered a seller and the borrower a buyer. On the other hand, it is perfectly reasonable to consider the borrower a seller of a note, bond, or mortgage, which is the thing taxed. Since resale of his securities by the original lender results in backward shifting, it is simpler to consider the original transaction to involve backward shifting.

the case of avoidance no tax is paid and no incidence results. Tax literature is replete with discussions of long-run "incidence" of property taxes which is not incidence at all as we have used the term. Suppose that a tax is levied upon the owners of houses. The incidence of this tax is upon them if there is no forward shifting (*i.e.*, the owner lives in his own house). A long-run effect of this fact of incidence may be that investment of capital in houses is discouraged, that fewer new houses are built and those built represent a smaller investment. There may thus occur a diversion of capital to other lines, quite possibly (under static assumptions) reducing the marginal product of capital in other lines. And this will reduce the productivity of capital previously invested in those lines. Does this mean that the incidence of a tax on dwelling houses is, in the long run, partially upon capital invested in manufacturing? The effect is, of course, important, but it goes beyond the problem of incidence as the term is here used, for it occurs through avoidance of the tax on dwellings; a potential dwellings tax not paid because the dwelling was not built can have no incidence.[4]

We have seen that taxes on property used for consumption purposes can be shifted only backward. Any tax not so shifted at the time of purchase of the property has its incidence upon the current owner. When property is used for purposes of production, an avenue for forward shifting is present. The goods and services flowing from taxed productive wealth are sold at prices which can frequently serve as the vehicle for forward shifting.

Taxes on the *property* of a producing enterprise are generally in the nature of a fixed cost of production. Property taxes on land, buildings, and fixed equipment are clearly additions to fixed cost, although taxes on inventories of raw materials, partly finished, and

[4] The writer hastens to ward off the charge that this is dismissal of a difficult problem by too rigorous definition. But strict adherence to definition is necessary if we are to keep our bearings. Obviously there are many effects (and important ones) which result from taxes or the threat of taxes. And shifts in investment represent one class of such effects. The avoidance of tax-encouragement to such shifts is possible by uniform treatment of wealth in whatever field invested. This means taxation of all wealth or none, which is difficult in view of state boundaries. But in the confused welter of tax effects we shall be fortunate if we can trace out the cause and effect lines within the narrow bounds of incidence as here used.

finished goods contain elements of variable cost. By and large, however, property taxes imposed upon business concerns are so overwhelmingly of the fixed cost variety that we are justified in analyzing their shiftability in that light.

If the firm is one producing under monopolistic competition, with more or less differentiation of its branded product from those of other producers, the problem is again that of determining the optimum quantity of output to maximize net income after taxes. Recalling our discussion in Chapter 13 we are forced to the conclusion that under monopolistic competition a tax which adds to fixed cost is not shifted forward, for no change in price or quantity sold will occur.

This is true because no change occurs in the demand schedule (and therefore in marginal revenue), and no change occurs in marginal cost. This latter fact we shall elaborate more fully, since we have given little attention so far to the analysis of cost. We must distinguish *types* of cost from *measures* of cost. There are two *types* of cost: fixed and variable. The former remain fixed in total amount with variation in output within the existing capacity of the plant; the latter vary with output. There are likewise two *measures* of cost per unit of output: average and marginal. Average unit cost is the total cost for a quantity of output divided by the number of units in that quantity. We may have average fixed cost per unit, average variable cost per unit, and average total unit cost (total cost being the sum of fixed and variable costs). Marginal cost is the actual additional cost incurred in the production or sale of an additional unit.

Since marginal cost is an important determinant of optimum quantity under monopolistic competition, we shall analyze it further. If the first unit is the marginal unit—*i.e.*, if we wish to measure the additional cost incurred in producing one unit rather than no units—the marginal cost is the sum of all fixed costs and the variable costs of producing the one unit. But after the first unit, additional output will add to total cost of production only the variable costs incurred. It is important for our analysis to note that after the first unit produced, marginal costs include no fixed costs at all. This being the case, a tax which increases fixed costs will not change marginal costs (after the first unit). Thus, we see that such a tax, since it changes

neither marginal cost nor marginal revenue, does not change the quantity sold or the price at which it is sold, and the tax is not shifted forward. The results of such a tax are shown in Figure 7. Since the tax affects neither marginal revenue nor marginal cost,

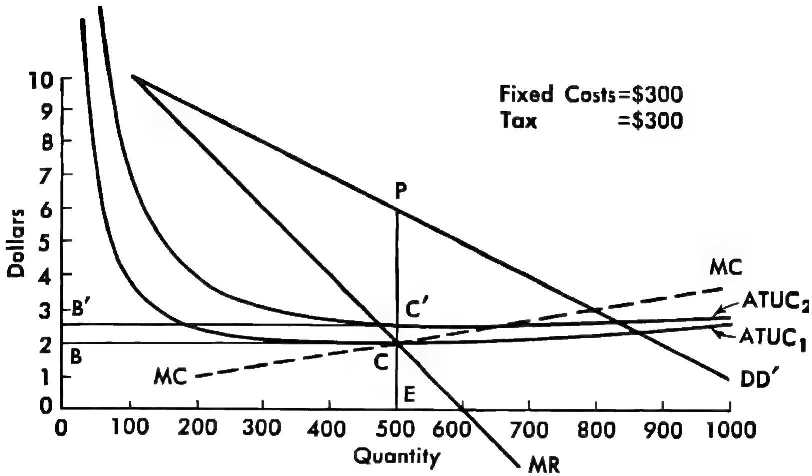

FIGURE 7 Tax as Fixed Cost (Monopolistic Competition)

the tax is not shifted forward, and the quantity sold (500 units) and the price per unit ($6.00) remain as before the tax. However, since the incidence of the tax is upon the seller, the result will be a decrease of his net income. The curve $ATUC_1$ is the curve of average total unit cost before the tax. That is, it measures by simple arithmetic the average per unit of the combined fixed and variable costs. Since CE measures average total unit cost, then CE times 500 (the area CEOB) will give total costs of producing the quantity of 500 units. $ATUC_2$ is the curve of average total unit cost after the tax, and C′E measures the average total unit cost of producing 500 units after the tax is imposed. The area C′EOB′ represents the total cost of production including the tax, and the area CC′B′B represents the amount by which net income has been reduced by payment of the tax.

The reader can apply the analysis developed in Chapter 13 to the incidence of a tax which increases fixed costs under conditions of pure competition. In the short run, the tax cannot be shifted, for it changes neither demand nor marginal cost, and thus neither price nor quantity sold. In the longer run, however, the tax addition to fixed costs will make formerly marginal firms submarginal; *i.e.*, will produce net losses to those firms which were formerly just breaking even. The consequence would normally be a diversion of productive factors from those firms into other lines, reducing market supply and raising price. Thus, in the long run, some forward shifting may occur.

But what about backward shifting of taxes which increase fixed costs? Clearly capitalization can take place, as the firm which purchases capital goods will calculate the property tax as a cost of production. How completely the tax can be shifted backward by capitalization depends, of course, upon the resistance of the purchaser of the capital good to absorption of the tax as compared to the resistance of the seller to backward shifting. And this is a function of the elasticity of demand of the buyer as compared with the elasticity of supply of the seller. It is safe to assume that some capitalization does typically occur, more when the supply of the seller of the capital good is relatively inelastic and its net-income-producing potentialities to the buyer are low, and less when the opposite conditions obtain.

Our general conclusion is that taxes in the nature of fixed costs of production are not shifted forward under conditions of monopolistic competition.[5] If pure competition were to prevail, the same conclusion is valid for the short run, though in the longer run the

[5] We have chosen to assume that there is little if any long-run reduction in the number of firms competing under conditions of monopolistic competition. That is, firms generally are receiving more or less monopoly profits prior to imposition of the tax. The significance of this assumption is that imposition of the tax, though it reduces monopoly profits, does not so markedly reduce them as to drive firms from the market. Thus, under our assumption there is no long-run increase in demand facing any firm. If we assume that there are marginal firms (just breaking even) prior to the tax, its imposition will, in the long run, drive them from the market and increase demand facing remaining firms. In such circumstances there would be long-run forward shifting, for the same reasons that there will be long-run forward shifting under pure competition.

demise of some firms will quite likely make possible some forward shifting by the firms remaining. On the other hand, some backward shifting will occur, by capitalization of the tax at the time of purchase of durable (fixed) capital instruments. The extent of backward shifting will vary in individual cases, depending upon the resistance of the seller as compared to that of the buyer. These relative powers of resistance to incidence will depend upon the comparative elasticities of individual demand and individual supply.

3. *Taxes Imposed on Production or Sale of Goods.* We deal in this section with the incidence of those taxes which are imposed directly upon production or sales. All such taxes are considered by the producer or seller as a cost of production, but the degree of shiftability will vary with the type of cost upon which the original impact of the tax is felt, and, as always, with degrees of pressure for and resistance to shifting, which vary with local and temporary market conditions. We distinguish three types of cost impact, determined by the nature of the tax measure:

1. Taxes which are fixed in total amount, and thus become added fixed cost.
2. Taxes whose total amount varies with the quantity of production or sale, but are constant additions to variable cost per unit.
3. Taxes whose total amount varies with the quantity of production or sale, but are varying additions to variable cost per unit.

In the first category we include fixed-amount taxes such as property taxes or taxes of a fixed amount upon the privilege of doing business. Included in the second category are taxes of a fixed amount *per unit of output or sale*, such as specific import duties (*e.g.*, 42¢ per bushel of wheat) or specific excises (*e.g.*, 7¢ per package of twenty cigarettes). The third category embraces those *ad valorem* duties or excises of which perhaps the most common example is a "2% retail sales tax."

We have analyzed the incidence of taxes of the first type in preceding paragraphs. If shifted at all in the short run they are shifted backward through capitalization, though in the long run, particularly under conditions of pure competition, there may be some forward shifting resulting from the disappearance of marginal firms.

Our earlier analysis proceeded in terms of a fixed property tax, which is the most common example of such a tax. However, certain business taxes are of the fixed sum variety and most fees and licenses are of this type.

Taxes of the second category are generally shiftable forward. For marginal cost is increased by a constant amount throughout the whole schedule, creating a new intersection of marginal revenue and marginal cost, and thus a new price and quantity. Since we are considering those taxes which make a constant addition to variable cost (whether measured as an average or marginally), the marginal cost curve including the tax will be higher and parallel to the curve before the tax. The incidence of such a tax is indicated in Figure 8.

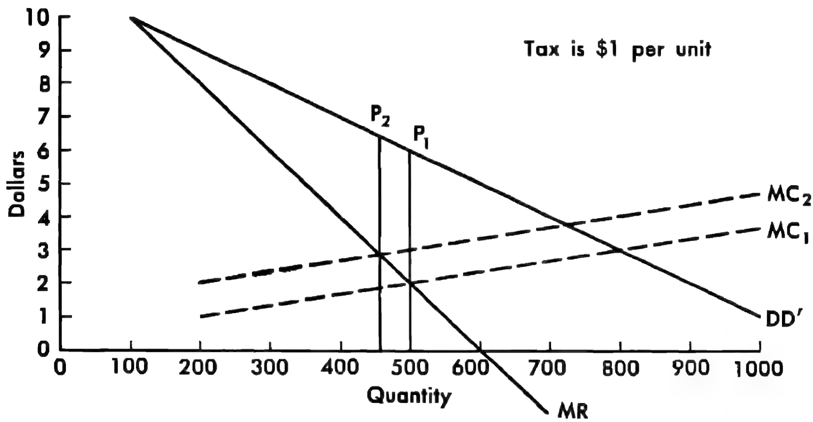

FIGURE 8 Tax as Constant Addition to Variable Costs (Monopolistic Competition)

Again we treat the typical case of monopolistic competition. The tax is assumed to be one dollar per unit, and this amount is added to former marginal cost (MC_1) to create a new curve of marginal cost including the tax (MC_2). A new intersection of marginal revenue and marginal cost including tax is seen to result, with the consequence that a smaller quantity (*ca.* 457 units) and a higher price P_2 ($6.43) will now give maximum net income to the firm. But

P_2 is not higher than P_1 by the whole amount of the tax; the rise in price is seen to be slightly less than half of the tax per unit. The remainder of the *incidence* will be upon the seller, although his marginal costs will have fallen slightly through reduction in quantity. As quantity has been reduced, total costs have been reduced, and some disemployment of the factors of production has occurred. But we cannot say that the factors have borne a part of the incidence, since the lowered cost per unit is the result of internal economies in the firm. That is, the factors are still paid going rates of remuneration, and cost of production of the marginal units is lower because of more economical combination of variable with fixed factors of production in the firm. The incidence is divided between buyers and sellers, though there are incidental (and economically important) effects upon the factors of production. It will be apparent that the steeper the slope of the demand curve for the product (the less elasticity of demand) the larger the share of the tax that can be shifted forward and the smaller the share that must be borne by the seller.[6]

Turning now to the case of a tax of fixed amount per unit of product under conditions of pure competition, we see (Figure 9) that supply for the market as a whole is decreased, cost of production per unit having been increased by the fixed amount of $1 per unit because of the specific tax. Demand remaining constant, the price increases from P_1 to P_2, while quantity sold is reduced. By calculation we find that the market price increases from $5 per unit to $5.55. The demand line for the individual seller (Figure 10) thus rises to the level of $5.55 per unit. The intersection with demand of the firm's new marginal cost curve, which is raised by the tax of one dollar per unit, is at P_2. The price will rise by 55¢ per unit, and the firm will sell 440 units instead of the original 500 sold before the tax

[6] In this analysis we have chosen to consider the tax as an addition to cost. Exactly the same results would be attained if we were to assume that the tax reduced net demand prices by one dollar per unit, and thus marginal revenue by the same amount. The technique used is a matter of personal preference; it seems more real to consider a tax whose first impact is upon the producer or seller as another of his various elements of cost of production, the demand schedule being an objective and external thing to him. There seems no better reason to consider the tax as affecting the "netness" of demand prices and not as additions to cost than to treat wages (for example) in the same manner.

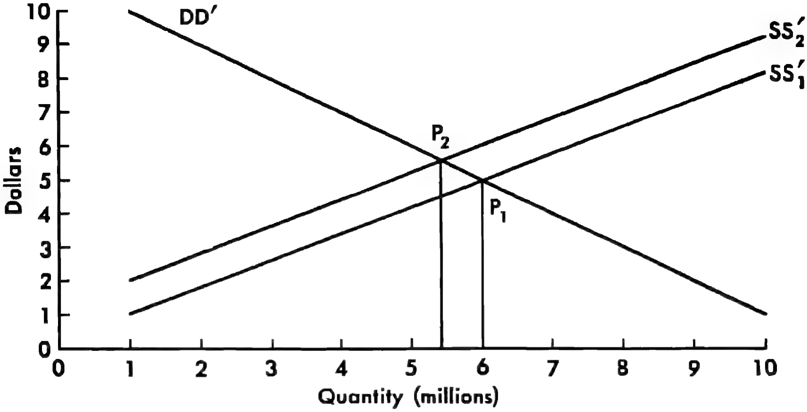

FIGURE 9 Tax as Constant Addition to Cost; the Industry under Pure Competition

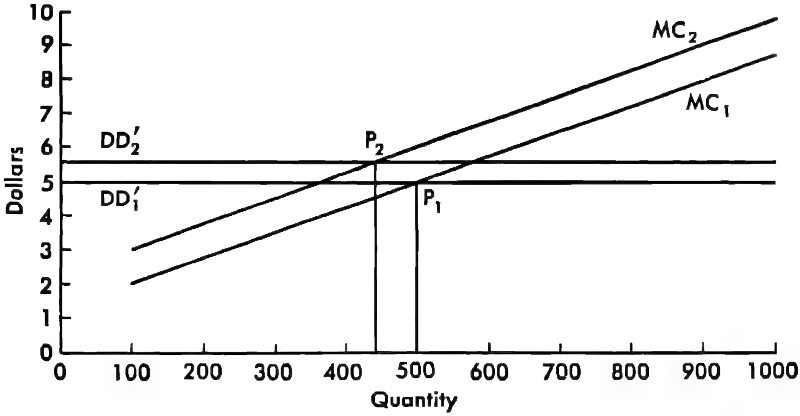

FIGURE 10 Tax as Constant Addition to Cost; the Firm under Pure Competition

was imposed. It is to be noted, however, that although the rise in price (55¢) is less than the amount of the tax per unit ($1), this higher price does cover marginal cost including the whole tax, and

thus explains why 440 units will be sold and not more or less. Nevertheless the amount of tax paid to government on 440 units is $440, while buyers pay $242 more ($.55 × 440) for 440 units than they would have if no tax were imposed. We thus conclude that incidence is divided between buyers and sellers, the former paying a higher price and the latter having less net income remaining after taxes. We must note that the seller's decreased income is due partly to his assumption of a part of the incidence—*i.e.*, profit per unit is less than it was before the tax—and partly to the decrease in quantity sold. Evidently if market demand is less elastic a larger share of the tax will be shifted forward, while if it is more elastic a larger share of incidence is upon the seller.

There remains for consideration the incidence of taxes which are additions to variable costs, but are varying additions. We have suggested an *ad valorem* retail sales tax as a typical example of this sort. The amount of the tax varies with the price of the product, and since normally the larger the quantity sold the lower the price per unit, the larger the quantity sold the smaller the tax addition to marginal (variable) cost.

Figure 11 is a variant of Figure 8, the only difference being that

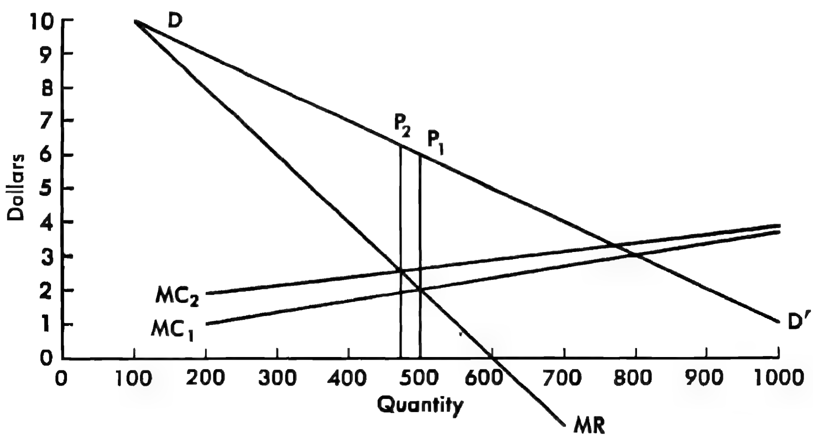

FIGURE 11 Tax as Changing Addition to Variable Cost; Monopolistic Competition

MC_2 in Figure 11 shows decreasing tax additions to marginal cost, while MC_2 in Figure 8 shows the tax to be a constant addition to marginal cost. Figure 11 pictures our typical condition of monopolistic competition. MC_2 is calculated on the assumption of a tax as 10 per cent of selling price; the data are shown in Table 25 below.

TABLE 25 Monopolistic Competition: Tax = 10% of Selling Price

QUANTITY SOLD	DEMAND PRICE	MARGINAL REVENUE	MARGINAL COST PRIOR TO TAX (MC_1)	MARGINAL COST INCLUDING TAX (MC_2)
100	$10	$10		
200	9	8	$1.00	$1.90
300	8	6	1.33	2.13
400	7	4	1.67	2.37
500	6	2	2.00	2.60
600	5	0	2.33	2.83
700	4	−2	2.67	3.07
800	3	−4	3.00	3.30
900	2	−6	3.33	3.53
1000	1	−8	3.67	3.77

Determination of the incidence of this type of tax follows exactly the same analysis as was used in the case of a tax which is a constant addition to variable cost. The quantity sold after tax is less than before, and the price somewhat higher. But the price increase is something less than the amount of the tax, which points to the conclusion that the incidence is shared between buyer and seller. Again, the less elastic the demand the greater the proportion of the tax shifted forward, while the greater the elasticity of demand the greater the proportion of incidence remaining with the seller.

The reader can alter Figures 9 and 10 to represent taxes which are varying additions to variable cost under conditions of pure competition. The conclusions are the same as we found in analysis of the incidence of a tax which is a constant addition to variable cost. The tax will, in the short run, be partially shifted forward and partially absorbed by the seller, the extent of each depending upon the elasticity of demand for the product.

A tax on gross income of a firm [7] can be recognized as being of the type here discussed. As the typical demand slopes downward from left to right (larger quantities being taken only at lower prices), gross income normally increases less rapidly than does quantity sold. The tax calculated on a per unit of output basis is therefore in the nature of a decreasing addition to marginal cost as quantity of output increases. Thus, under monopolistic or pure competition the tax is partly shifted forward and partly absorbed by the seller, the extent of each depending upon the elasticity of demand for the product.

A gross income tax is the typical form of state taxation of regulated public utilities, and constitutes a special case. The fact of public utility price regulation admits that such highly monopolistic businesses are not allowed to exploit demand to the full extent. That is, regulation allows prices which normally provide something less than the maximum possible net income under current demand conditions. But since under regulation it is desired to provide adequate net income to the public utility, business taxes are an element of cost which are typically considered in establishing legal rates. In such a case the tax is completely shifted, the regulating authority allowing rates higher than it would have allowed if there were no tax. Clearly this complete shifting occurs because of the special circumstances in which public utilities are restrained from maximizing net income. Unregulated business, which is presumably already maximizing net income, meets far more vigorous resistance to forward shifting.

[7] Gross income taxes actually occur largely in the field of state business taxation, where a net income tax might be preferred but is not feasible because it would impose a major revision of business accounting systems. If a tax is on net income, it assumes that firms determine net income by the same accounting procedures. Corporations do have comparable accounting systems, partly because of the requirements of the federal corporation income tax, and net income means the same thing to one corporation as it does to another. But miscellaneous unincorporated businesses follow varied accounting procedures, and some follow none at all. In such a case it is infeasible either to take the firm's figure of net income or to require all firms to adopt standard procedures. But since any business should know its gross income it is reasonably safe to take such a figure as the tax base.

GENERALIZATIONS CONCERNING SHIFTING AND INCIDENCE

Whether or not a tax can be shifted will depend upon the strength of the defense which can be maintained against shifting. The strength of this defense is reflected in the elasticity of demand (forward shifting) or supply (backward shifting). In the case of forward shifting, inelastic demand is an indication of weakness of the defense. Since under inelastic demand increase in price would bring about little reduction in quantity sold, the consequences to the seller are relatively slight. If demand is relatively elastic, an increase in price will bring forth a major decline in quantity taken, and the consequences to the seller's net income will be relatively high net income per unit but relatively low total volume of net income. Comparable statements may be made with respect to backward shifting. If the elasticity of supply is great, a lower price offered will greatly reduce the quantity offered, and the tax will less likely be shifted backward than if supply is inelastic. When a choice is to be made between backward and forward shifting, the direction in which the burden of the tax will be shifted will depend upon the comparative resistance in the two directions. When the resistance is vigorous in both directions, the point of least resistance may well be with the person upon whom the tax is first imposed, in which case it will not be shifted.

The only categorical conclusion which we can draw is that the extent and direction of shifting depends upon the current situation in the market, and that therefore generalizations without qualifications as to the shiftability of particular taxes are dangerous. Nevertheless, in terms of the factors which contribute to the ability to resist shifting, and admitting of qualifications, the type of tax will be an important determining factor. Taxes on net income are rarely shifted forward, and for the same reasons rarely shifted backward. Taxes which represent additions to fixed costs are typically not shifted forward, except in the longer-run under the assumed conditions of pure competition. They may be shifted backward through capitalization when a vehicle for shifting is available; for example, a property tax may be shifted backward at the time of purchase of the property. Taxes which are a constant or varying addition to

variable costs are in most cases partially shifted forward and partially borne by the seller originally taxed.

EXTERNAL INFLUENCES UPON TAX SHIFTING

We have seen that the current condition of the market is an important determinant of the direction and extent of shifting. We have already indicated that the elasticities of demand and supply are the important factors to be considered. What we may call the internal or inherent determinants of demand include the level of incomes and desire for the particular product. But there are several external determinants as well. These are the result of public policy, of the type of tax law, of customary prices, and of limitations upon administrative authority. It may well be, for example, that the use of the tax proceeds will affect the resistance to shifting. The proceeds of the processing taxes under the Agricultural Adjustment Act were used to pay benefits to farmers for reducing output. They were cash benefits which helped to stiffen the resistance of farmers to sales at prices reduced by backward-shifted taxes. The more successful the crop-restriction program the greater this resistance, and thus the greater the encouragement to forward shifting. It has been claimed that the use of gasoline taxes for road improvement has weakened the resistance of the motorist against forward shifting of these taxes in increased prices. The matter must be handled with care, however. To the extent that the motorist was willing to assume the burden *because of* the promise of road improvement, his resistance to forward shifting was weakened. But to state simply that gasoline prices have risen along with the tax and the improvement of roads is not to prove forward shifting. The phenomenal advance of the automobile and the highway would almost certainly have brought about an increase in gasoline prices without the tax. The real question is, therefore, how much gasoline prices would have risen if there had been no gasoline tax. If they would have risen to present levels without a tax, then the tax has not been shifted. The essential point is that in this case the imposition of a gasoline tax is only one of many possible reasons for an increase in the price of gasoline. Nevertheless, considerable forward shifting can be assumed to have occurred, and it is clearly possible for tax revenues to be

spent in such a way as to reduce or to increase resistance to shifting.[8] Public policy such as that which supports wage rates or labor unionization can make more difficult backward shifting to labor of certain taxes on business.

The type of tax law can have real effect upon the shiftability of a tax. For example, the advertising or posting of prices less tax assists in the forward shifting process. The unsophisticated buyer decides to buy on the basis of advertised or posted price, and does not frequently change his mind when the tax is added. Likewise, the collection of sales taxes at the cash register after parcels are wrapped helps to break down buyer resistance to forward shifting. The imposition of taxes upon some items while leaving substitutes untaxed strengthens resistance to forward shifting of these taxes.

The existence of customary prices in the market militates against forward shifting to the consumer. The custom of a five cent cigar, a five cent candy bar, or a dollar watch means that the seller stands to lose valuable good-will by raising his price.[9] This is particularly true in cases where the price has traditionally been a small, round sum, or where the seller has stressed price in his sales campaign. To raise the price of what had come to be known as a "dollar watch" to $1.10 would have far more serious consequences to demand than would raising the price of a $24.95 watch to $27.45, though both would represent a 10 per cent increase. And after the successful expenditure of millions of dollars of advertising budget to sell smoking tobacco *because of its price,* the seller will be extremely hesitant to discard the good-will so engendered by raising the price to shift a new tax.

Closely allied to the fact of customary price is the size of the tax in relation to price of the good. If the tax were at the rate of 5 per cent imposed upon the manufacture of a good, this tax might well be shifted forward. The manufacturer's bulk price for large quantities sold to wholesalers will generally permit of a percentage increase.

[8] Obviously if tax revenues were returned by government to the original payers as a bonus for having paid the taxes, there would be little or no pressure to shift them in either direction.

[9] But the tax can frequently be shifted forward just as effectively by reduction of quantity or quality of the goods' content, so that the five cent candy bar may be made smaller or of poorer quality.

But suppose at the retail level the commodity has been selling at five cents per unit, and the quantity commonly purchased at retail is one unit at a time. If the tax were completely shifted down to the retailer and he were to shift it on to the consumer, the retail price should be more than five cents and less than six cents. In such a case the retailer is frequently wise to absorb the shifted tax himself, and to resist shifting to him so far as is possible.

The geographical coverage of the tax law can be an important determinant of shiftability. The administrative authority of a city or a state extends to the boundaries of that city or state. In the nineteen-thirties, when considerable variation in the level of state gasoline taxes existed, one could travel from a low-tax state to a high-tax state without experiencing an immediate change in the price of gasoline. If the tax had been completely shifted in each state, there would have been an abrupt change in price as the state line was crossed. The fact that this was not the case indicates that resistance to shifting was great, and was due to the availability of a lower-priced substitute (gasoline bearing lower tax) in a neighboring market. In the interior of the high-taxed state prices were typically higher, because of insulation from low-price competition, and the tax was almost completely shifted. At the border, where forward shifting was impossible without seriously reducing sales, it is nevertheless unlikely that any major share of the tax was borne by the individual retail distributor. The major share was typically borne by refiner-wholesalers, who were able to maintain gallonage of output at retail only by quoting lower base prices to their retail distributors.[10]

The size of the taxed area will always affect shiftability of a tax on the production or sale of a commodity. When the good can be bought in nearby untaxed markets, an attempt at forward shifting will meet vigorous resistance, caused by the availability of untaxed

[10] It would be instructive to investigate the effect upon the price of gasoline in state A when contiguous state B raised its gasoline tax rate. Retailers in B at the border could not pass on the tax increase without experiencing serious loss of business to retailers across the line in A. But B's new tax does change conditions in A. If the wholesale distributors lowered base prices to absorb only a part of the tax applied to sales in state B, they could conceivably raise base prices to sellers in A. If this were done, a part of the tax would be shifted to consumers in both states.

competing goods. Although size of the taxed area does not typically affect the *shifting* of income taxes or taxes on the ownership of property used for consumption (*e.g.*, residences), it does encourage the avoidance of these taxes by transfer of residence or the situs of taxable property.[11]

OTHER EFFECTS OF TAXES

Our analysis of tax incidence has proceeded in terms of a rigorous definition of incidence as only one segment of the total range of tax effects. We have limited our meaning of incidence to the final resting place of the burden of the amount paid to government. But we have also noted that there are effects other than incidence, and these effects may be vastly more important in the long run than incidence itself. These "other effects" we have previously classified as (1) those (other than incidence) created in the process of shifting, and (2) those resulting from incidence.

Effects Created in the Process of Shifting When a tax is not shifted, it is evident that effects of this type do not result. But when a tax is shifted there are typically concurrent effects (other than incidence) of varying types. Assuming as typical a demand curve which slopes downward from left to right, and a marginal cost curve sloping upward from left to right (increasing cost), forward shifting of a tax on a salable good will reduce the number of units sold. This reduction of quantity sold will decrease employment of some factors of production by the firm. The disemployed factors are clearly worse off immediately than they would be if required to bear a part of the incidence, and in the long run may experience lower income as a result of their general oversupply.

Taxes may have important effects upon the structure of industry. A general sales tax, which is imposed upon each transfer of a good from one stage in production to another, may well urge vertical integration of industry. The fewer the transactions prior to marketing the end product, the smaller the amount of tax to be included in final

[11] Clear distinction must be made between *avoidance* and *evasion* of taxes. The first is perfectly legal, placing one in a position where he is not legally liable for payment of a tax. The latter is illegal, and means failure to pay a tax which is payable. A poll tax may be *avoided* by moving to a state with no poll tax; it may be *evaded* by keeping out of sight of the tax authorities.

price. To take an example, in the production of canned tomatoes, the tomatoes may be raised on a farm and sold to a canner. The canner may sell to a wholesaler, the wholesaler to a retailer, and the retailer to a consumer. If each stage in production were independently owned, there would be four price transactions from raw material to final consumption. If each of these transactions were subject to general sales tax, the retail price would include four taxes, and each of the last three would be taxes computed upon prices including previous taxes. The complete shifting of such a tax would be increasingly difficult as the retail level is approached, and the pyramiding of such taxes could be avoided by integrating the processes into fewer firms so as to reduce the number of transactions. A retail grocery chain, by owning its own truck gardens, canneries, and wholesaling facilities, would gain a retail price advantage over its independent competititors by eliminating all price transactions except the last, and thus being subject to tax only once. Such integration would be a clear case of tax avoidance, making shifting easier or making the incidence easier to bear if the tax could not be shifted. Clearly a general sales tax would create great comparative advantage to integrated firms, and would be a strong force promoting further integration.

Effects Resulting from Incidence The fact of incidence itself sets off a chain of potentially important effects. Avoidance of personal income taxes by changes in residence, and avoidance of property taxes by changes in the situs of property are commonplace occurrences resulting from the fact of incidence—the only way to avoid incidence is to get out from under the jurisdiction of the tax. But suppose avoidance is impossible, because the tax is so broad in coverage. Then the tax will be paid, and its incidence will be borne by someone.

The first and obvious effect of tax incidence is the reduction in disposable income of the person upon whom incidence falls. This implies reduction of income available for individual consumption, investment, or hoarding. If the tax-bearer is a low-income individual, the effect is most likely a decline in his consumption, since what saving he does is largely imposed upon him by his circumstances and his outlook for the future. If the tax-bearer receives high income,

the tax will fall principally on saving. It does not follow, however, that total social consumption and/or investment will decline, for government may substitute its consumption and investment for the private decline. But if government were to use its revenue for debt retirement of the type which destroys money (reducing bank deposits) the effect of the tax would likely be a decline of social income. This may or may not be desirable, depending upon the current phase of the business cycle.

Here again we see the logic of counter-cycle tax policy. When anticipations (and national income) are falling it is disastrous to try to balance the budget. For we see that taxes must be paid out of someone's income, and the income receiver upon whom incidence falls will be required to curb consumption or investment. Thus high taxation may urge a further decline in income.[12] On the other hand, tax reduction increases the disposable incomes of those upon whom incidence falls, and can thus be expected to assist in reviving declining anticipations. In the boom phase of the cycle exactly the opposite results are required. Heavier taxes curb inflationary anticipations by reducing disposable income, while at the same time making possible a reduction in the general credit structure (destruction of new money) through debt retirement.

A tax system capable of selective application is thus indicated for counter-cycle policy. And this means a system of taxes whose incidence is not widely dispersed—*i.e.*, subject to dependable forecast. The personal income tax meets this requirement well, since it is as a general rule not shifted; its incidence is upon those upon whom it is imposed. And when shifting does not occur, it is far more possible to engineer the desired results by adjustment in the tax measure itself.

RECOMMENDED READINGS

Meyers, A. L., *Modern Economics: Elements and Problems*, N. Y., Prentice-Hall, 1941, Chapter 28.

[12] If the incidence of the tax were to fall upon hoards, income would not necessarily fall, though the reduction of hoards may allow interest rates to rise and thus discourage borrowing for investment. Also, if hoards are purposeful their taxation may well encourage a decline in consumption or investment in order to replace the purposely created hoards taxed away.

An excellent textbook discussion. The same appears in Meyers, *Modern Economic Problems,* Chapter 3.

Ferger, W. F., "The Measurement of Tax Shifting: Economics and Law," *Quarterly Journal of Economics*, May, 1940, p. 429 ff.

A valuable contribution to incidence literature, highlighting the practical factors of business practice and legal influences.

Brown, H. G., *The Economics of Taxation*, N. Y., Holt, 1924.

A reliable, standard work on tax incidence. Though it does not have the benefit of the later developments in the theory of monopolistic competition, it is still highly useful. No chapters are specifically recommended, for the various chapters analyze the incidence of particular taxes.

Hicks, U. K., *The Finance of British Government, 1920 1936,* London, Oxford, 1938, Chapter 15.

A sprightly, unqualified statement of conclusions with respect to incidence, with special application to Britain.

Bureau of Agricultural Economics, *An Analysis of the Effects of the Processing Taxes Levied Under the Agricultural Adjustment Act*, Washington, 1937.

An excellent example of empirical determination of incidence.

von Mering, O., *The Shifting and Incidence of Taxation*, Phila., Blakiston, 1942.

A ponderous, detailed, highly theoretical study of the subject. The refinements are minute, and the emphasis appears to be more upon value theory than upon conclusions as to incidence. Probably not useful for undergraduate reading. Part II, dealing with the incidence of particular taxes, will be more generally useful than Part I, developing the general theory of shifting.

CHAPTER 15

PROPERTY TAXATION

Property taxes are used only by state and local governments in the United States. The constitutional prohibition of direct taxation by the federal government except on the basis of census enumeration would largely rule out federal property taxation even if this tax field had not been preempted by state and local governments. Its revenue importance to state governments has shown marked decline, as indicated in Table 26; it is no longer a major contributor to the revenues of the states. This is due both to the abandonment of state property taxation in several states and to the rise of other revenues at the state level.

TABLE 26 Per Cent of Property Taxes to Total General Revenues (Excluding Grants) [1]

YEAR	STATES	CITIES
1915	58.6	62.0
1921	42.0	66.2
1925	33.4	66.1
1931	23.2	67.8
1940	6.9	78.5
1942	4.6	78.9
1944	4.2	78.8

[1] Sources of statistics from which computations were made:
States: 1915–1940 Bureau of the Census, *Financial Statistics of States;* 1942, Bureau of the Census, *State Finances,* 1942; 1944, *State Finances,* 1944.
Cities: 1915–1940, Bureau of the Census, *Financial Statistics of Cities;* 1942, Bureau of the Census, *City Finances,* 1942; 1944, *City Finances,* 1944.

On the other hand, as the table shows, the property tax is not only the revenue mainstay of cities, but it is increasing in importance. This may be due partially to greater inclusiveness of the statistical coverage in the table, but is undoubtedly significantly related to withdrawal of the states from the property tax realm in favor of local governments. Were the figures available to include county and other local governments and smaller cities and villages the significance of property taxes to local governments in general would appear even greater.

State revenues from the property tax have recently declined both absolutely and in relation to other revenues. In 1942 state property tax revenue was almost exactly equal to that collected in 1915, though it was little more than half that collected in 1931. The decline in importance is particularly striking relative to other revenue measures. State revenues since 1930 show principal dependence upon sales taxes, excises (principally upon gasoline, liquor, and cigarettes), payroll taxes, and business taxes. One of the most significant facts of public finance in the last quarter-century has been the replacement of the property tax at the state level by other measures.

The property tax is one of the oldest forms of taxation. And it is still an important element of the American tax system. In 1941 it produced about one-fourth of combined federal, state, and city tax revenues.[2] At the same time, there is little to recommend the property tax on grounds of theory, and in practice the quality of its administration throughout the country varies from indifferent to bad. In short, it is a bad tax made worse in its effects by poor administration.

STEPS IN ADMINISTRATION OF THE PROPERTY TAX

There are four steps in administration of the property tax: assessment, equalization, apportionment, and collection. We shall discuss each of these steps at some length, to show something of the types of problems which arise and the quality of administration to be found. We postpone analysis of the theory until later in the chapter.

[2] See Table 23. Were it possible to include revenues of small cities, towns, villages, and county governments, the proportion would be somewhat higher.

Assessment The tax base in property taxation is the assessed value of the property against which the tax is levied, and the amount payable is this base times a flat tax rate. The first step is to determine the value of taxable property—*i.e.*, to assess it. The assessment function involves two steps: (1) bringing taxable property into the tax rolls, and (2) placing a value upon it for tax purposes. Neither of these steps is as simple as might be assumed. Bringing taxable property into the tax rolls involves knowledge on the part of the taxing authorities that such property exists. The typical practice has been to depend upon the taxpayer himself to report items of taxable property. This method makes unnecessary detailed search by the assessor, but leaves wide openings for tax evasion.

The personnel requirements of annual assessment at the site by a representative of the assessor's office are typically too great. Most assessment is therefore done at the assessor's desk, by copying the return of the previous year. It would appear that real property (land and buildings) could be brought into the rolls with little escape. Nevertheless, careful investigations have quite uniformly turned up fairly large tracts of land which had previously entirely escaped assessment. Comparison of aerial survey photographs with tax maps offers a useful method of bringing real property into the rolls. But the problem of bringing real property into the tax rolls is minor compared to that with respect to movable personal property. We may distinguish two types of personal (movable) property: tangible and intangible. Tangible personal property includes machinery, materials, furniture, clothing, jewelry, and the like; in short, all tangible things except land and buildings, which are classed as real property. Intangible personal property includes securities and bank deposits, and such intangible assets as "good-will" and patent rights.[3]

How nearly possible is it to bring tangible personal property

[3] The reader will do well to realize that not all property tax laws contemplate taxation of all real, tangible personal, and intangible personal property. The exemption or special treatment of some items of property in particular tax laws may result from recognition that in theory a "general property tax" under the "uniform rule" is undesirable, or far more likely that reasonably good administration of the "general property tax" is impossible. We shall discuss this matter later in the chapter.

within the cognizance of assessors? A good job would involve a much larger corps of investigators than is usually available, much greater determination on the part of assessing officers than is typically the case, and legal authority to enter premises and conduct a thorough search. Experience has shown that the gains to the taxpayers from evasion are so great, and the likelihood that evasion will be detected and punished so small, that dependence upon the property owner to report his holdings is highly unsuccessful. Likewise, experience has shown it to be infeasible to provide assessors with sufficient personnel and sufficient power to do the job without dependence upon self-reporting.[4] The consequence is that a large proportion of tangible personal property escapes taxation through evasion, and the tangible personal property tax falls heavily on business concerns whose property is readily included in the rolls and upon those unfortunate individuals who are burdened either with a vigorous conscience or a groundless fear of legal consequences. It should be added, however, that some items of tangible property offer little opportunity of escape from the tax rolls. The ownership of automobiles, for example, is easily detected because state motor vehicle registration records are available to assessors. Where licenses to own or operate items of tangible property are required, such property typically represents a major portion of the base of this tax.

The problem of evasion is generally even more serious in the case of intangibles than in the case of tangibles. The assessor cannot walk (or drive) down the street and see them, and voluntary reporting can be evaded with the greatest of ease, except in the case of local bank deposits. The industrious assessor *can* thus make a good record in including real property in the rolls; he will be largely unsuccessful with respect to tangible personal property (with the exception of some items), and almost wholly unsuccessful with respect to intangibles.

But bringing property into the rolls is only the first step in assessment. If property is to represent the tax base, some value for

[4] In a few instances, states have used "tax inquisitor laws" which give the assessor the right to search. Use of this power, however, makes the job of the assessor an unpleasant one, especially if he is an elected official. Further, such laws are highly unpopular, conflicting with the principle that "a man's home is his castle." Such laws have thus been both short-lived and ineffective.

tax purposes must be placed upon it. The only true value of a thing is the price it will bring in the market. But most taxable property is not for sale, and thus has no objectively determinable value. The value of a merchant's inventory of goods for sale is easily determined, but partly manufactured goods, much real estate, and most used consumers' goods require pure estimate on the part of the assessor. Much litigation therefore has arisen over assessed valuation, and much more would arise if general underassessment did not occur.

Property tax laws typically require assessment at some proportion of "true" value. Where the property is not for sale by a willing seller to a willing buyer, some substitute for "true" value is required. But this substitute for true value is not true value, and the taxpayer would thus in many cases have recourse to judicial review of the assessment. Under conditions of general underassessment, however, judicial review might well raise the assessment rather than lower it. This is true because when the judicial spotlight is thrown upon the particular assessment it may be clear that, although the assessment under consideration is high in relation to others, it is low in relation to the level of assessment required by law. It is thus frequently desirable to let well enough alone, and to accept existing inequity in assessment as the lesser of two possible inequities. One reason for underassessment is to avoid litigation. Another will be discussed in connection with equalization.

Intangible property by and large lends itself to valuation more simply than either of the other two classes. There is, of course, no problem in placing a true value on bank deposits. Many stocks and bonds offer regular market quotations, while other stocks, bonds, mortgages, and even good-will, patent rights, etc., have a calculable book value which is reasonably dependable for tax purposes. The chief assessment problem with respect to intangibles consists therefore in bringing them under scrutiny, not in attaching a value to them.

Tangible personal property, because of its miscellaneousness, is most difficult to value for tax purposes. Standard trade-in values typically exist for used automobiles, and their rule-of-thumb valuation is not difficult. But most other items in this property class lack standardized used market values and require expert appraisal. The

small amount typically reported, however, makes the employment of expert appraisers impracticable, and the typical appraisal is a rough guess generally erring on the low side. For this class of property we find a high degree of evasion and a low degree of expertness in determination of value for tax purposes.

Real property escapes inclusion in the tax list only with difficulty, and being more or less homogeneous in nature is subject to comparison with actual market prices and to slide rule methods of valuation. For these reasons the property tax has come to be in fact very largely a real estate tax, whether or not the law has kept pace with tax practice and offered exemption or other special treatment to the other classes of property.

What possibilities exist for improvement of property tax assessment? The first requirement would seem to be outright exemption of those classes of property which defy either inclusion in the rolls or simple and objective processes of valuation. This would mean almost complete exemption of tangible and intangible personal property. When the degree of evasion is admittedly high it is generally the better part of discretion to make it legal by exemption. This removes the premium upon disobedience of law and the penalty upon the law-abiding citizen. The sacrifice of revenue would be relatively small, while the danger inherent in the probable carry-over of the propensity to evade from a poor tax to a good one is considerable. The morale effects upon taxpayers in general of retaining a disreputable tax may easily carry over into other tax fields, so that the continued encouragement of evasion-morality by the property tax may have serious repercussions upon the administrative effectiveness of, say, the income tax.

Wholesale evasion of tangible and intangible personal property taxes has long been recognized. The solution to the problem lies in exemption. But the states have shown considerable reluctance to take this drastic step, partly because of unwillingness to sacrifice even a small amount of revenue, partly because of the belief that property is property, whether real or personal, and partly because exemption of personal property would give legislative sanction to discrimination against real property. Consequently they have alternated between the policies of the carrot and the stick, at times at-

tempting to entice intangibles into the rolls by special low-rate treatmen (thus narrowing the gap between the gain from evasion and the penalty of prosecution), and at other times increasing penalties for evasion or arming assessors with search warrants. The policy of the carrot has produced little additional revenue and has reduced evasion but little. The policy of the stick has been equally unsuccessful, while generating new antagonisms toward government.[5]

Exemption of certain items of property from taxation does not represent a radical departure from traditional tax practice. States have typically provided exemption of a minimum amount of property (*e.g.*, a round sum exemption of combined types of property or exemption of minimum amounts of separate categories of property such as furniture, musical instruments, etc.). Traditionally a special exemption has been granted to war veterans. These exemptions follow from the principle of an untaxed minimum of subsistence or the principle of the continuing bonus. Government property is generally exempt from taxation, for obvious reasons. Property used by non-profit charitable, educational, and religious organizations in the direct performance of their functions has always been exempt from taxation. Three reasons have been given for this. The first is that these are functions which government would be required to perform if private agencies did not, and a minimum of government assistance can be given through tax exemption. The second is that the performance of their functions by these private agencies actually increases the capacity of other property to pay taxes, and thus exemption is no burden upon taxed property. (It is difficult to see why a railroad or any other economically desirable concern could not justifiably use the same argument.) The third reason is that, being non-profit organizations, they possess no net income and thus no capacity to pay taxes. (Any unprofitable business concern might well claim exemption on the same grounds.) The first of these reasons is the controlling one, although the traditional financial difficulties of most such organizations probably justify a departure from strict logic in the public interest.

[5] In later discussion of the theory of property taxation we shall show that justice (in addition to expediency) requires exemption of intangibles from property taxation.

The second requirement for improvement of assessment is to provide for more centralization of assessment than now exists. The state should exercise active cognizance over local assessors, whether elected or appointed. This means far greater emphasis upon uniformity in techniques, and particularly far greater uniformity in the proportion of real value at which property is assessed. Competitive underassessment is destructive of justice among taxpayers in different assessment districts.

The third requirement for improvement is to eliminate a great deal of fossilization, both in assessment personnel and in assessment procedure. This latter becomes much more possible if the classes of property (tangible and intangible) which cannot be assessed properly are given complete exemption. Then the tax becomes a real estate tax, and taxable property can be brought into the lists by industrious searching on the part of the assessor. Once all taxable real property is listed the problem of valuation can be reduced to formula. In some cities "scientific assessment" has been developed to a point where it is both easily administered and amenable to proper adjustment. Scientific assessment implies the development of formulae by which the assessed value of a piece of property can be determined simply, and yet is subject to change with variations in market value.

The Cleveland system, for example, provides for the assessment of urban land by the multiplication of a front foot value factor by the frontage of the lot. This is then qualified by a depth formula for lots of varying depth, a triangle formula which allows adjustment for lots of irregular shapes, and a corner influence formula for corner lots. The formulae are themselves derived from actual sales of land which indicate corner influence, depth influence, and shape-irregularity influence upon market values. Once determined, these formulae are subject to little change over long periods. The factor which does change, however, is the value of the location per front foot. Constant observation of changes in site values is required to keep the front foot factor up to date. Buildings are assessed by the multiplication of floor area by a square foot factor. This factor varies with different types of buildings and with different kinds of construction. The formulae, however, are developed from data of actual

costs of construction, and the square foot factor is subject to change with building values. The assessed value of a piece of real estate is then the sum of the formula-determined land assessment and the formula-determined building assessment.

Under such assessment procedures, three types of assessment personnel are required: researchers to keep the formulae and factors up to date, "outside men" to gather original information as to dimensions and types of property and to record improvements or changes in particular parcels, and clerks who will apply the formulae to the property description to determine the assessment. Possibly only the large cities can afford such a staff. But there is no reason why the state cannot perform much of this service for its administrative subdivisions. There are two fundamental requirements for such a change. The first is determination to correct as many of the present abuses as is possible. This means a change in attitude from hopeless surrender to a bad tax badly administered. The second is introduction of realism into tax laws. Such scientific assessment does not tell what the actual value of a piece of property is when that property is not for sale. It merely determines a tax base which is a reasonable and equitable substitute for a true value which is unknown. And property tax laws should recognize this fact realistically. They too frequently call upon the assessor to perform an impossible task—to assess at true value when true value cannot be determined. In the field of public utility regulation a similar problem has been met. Clearly the true "value" of public utility property depends upon the rates which the regulatory commission will allow. It is absurd, therefore, to use the "value" of property to test the adequacy of rates. The circle is broken by the adoption of a useful "rate base" independent of value. Similar adoption of a fair "tax base" is required, without insisting that it be identical with "true value."

Our discussion of improvement in assessment should not be taken as an indication that if properly administered the property tax is a good tax. Wholly apart from the question of its theoretical desirability as a tax measure, however, it is likely to be with us for a long time. Our analysis of its theoretical foundations will point out that it is a very bad tax indeed. Nevertheless inertia is a powerful factor in preventing an identity between what might be and

what is. If we are going to live with a bad tax, the least we can do is to raise the quality of its administration to the highest possible level.

Equalization The purpose of equalization is to iron out injustices in assessment. It is in line with democratic procedure to provide some appeal from the assessment to permit judicial determination of its fairness. Boards of review or equalization exist in all property-taxing jurisdictions, to hear the complaints of property owners dissatisfied with their assessments. Since the city tax rate is applied to assessments appearing on the grand list of the city, a city board will pass upon the justice of local assessments. Since the county tax rate will be applied equally to all assessments in the county, dissatisfaction may arise over the relative levels of assessments in two cities in the same county. Hence, there must be a county board of equalization. And the state, if it employs a property tax, will likely apply its tax rate equally to all assessments in the state, and thus a state board is required. When different governments tax the same property, they do not assess independently. City or town government does the assessing (by districts if the city is large enough). City grand lists are made up of combined assessment district lists in the city. County grand lists are made up of combined lists of all towns (townships) in the county. And the state grand list combines the county grand lists. Since one assessment serves for all participating governments at various levels, inequality in standards of assessment may occur. Thus, provision must be made for review of assessments at all levels.

The service of equalization is not, however, of much significance in practice. In some states the property owner has no recourse to review unless he has voluntarily made his return. This provision is designed to encourage voluntary listing, since the failure to list subjects the offender to arbitrary assessment without recourse.[6] The principal reason why boards of review have little work to do is that when there is general underassessment it is dangerous to request investigation. Suppose that state law requires that all property be assessed at 100 per cent of true value. Suppose that in city A

[6] Much more effective in encouraging voluntary listing is a tax penalty payment for failure to list voluntarily.

property is generally assessed at 70 per cent of value, while in city B the level is 50 per cent. So far as the state tax is concerned, property owners in A are required to pay more heavily per dollar of actual value than are those in B. But if the property owner complains to the state board of review he may find that his assessment is raised to 100 per cent, while those of others in cities A and B remain as before. In such a case he would pay more heavily after review than if he had made no complaint.

It may be asked why underassessment occurs so generally. The first reason is that underassessment forestalls complaints. If the assessor is required to guess at a proper assessed value it is safer to guess low and not be required later to substantiate his guess in terms of "true value." In addition, there are political advantages in not only assessing low, but below the assessments in other districts. If the assessor is elected to office there may be a real urge to perform favors for those who elected him. If assessments in city A are below those in city B, it makes no difference *so far as city taxes are concerned* how far property in A is underassessed.[7] But in county and state taxation greater underassessment in A reduces the county and state tax bill to property owners in A. And if the assessor is appointed to office it may be a policy of the administration to keep assessments low relative to those in other areas, and for the same reasons as are given above.

Apportionment We have hinted several times in previous discussion at the nature of apportionment. It is the process of determining the rates of property tax to be imposed by various levels of government upon a given piece of property. When assessment and equalization are completed, it is possible to determine the proper tax rates to be applied by various governments participating. Each government knows how much it wishes to raise by property taxation, and each has its grand list. When the former is divided by the latter, the result is the tax rate. Let us follow the process in tabular form.

[7] This is true because the lower the general level of assessment, the higher the tax rate must be in order to raise the required revenue. So long as assessments within a city are at a uniform level, so as to avoid discrimination between parcels of property, it makes no difference whether assessments are low and tax rates high or assessments high and tax rates low.

TAXING GOVERNMENT	GRAND LIST *(Assessed value of property)*	DESIRED REVENUE	TAX RATE *(1 Divided by 2)*
City A	$ 50,000,000	$1,250,000	25 mills (2.5%)
County 1 (includes City A)	200,000,000	80,000	4 mills (.4%)
State I (includes County 1)	1,000,000,000	4,000,000	4 mills (.4%)
Total tax rate on property in City A			33 mills (3.3%)

Property in city A will pay 33 mills (3.3%) per dollar of assessed valuation. Actually our example is oversimplified, and particular parcels of property in city A may pay considerably more. There may be special district (school district, fire district, sewer district, etc.) property taxes imposed as special assessments and included in the annual tax bill. The tax rate which any government may apply will depend upon the property tax revenues required, the amount of tax delinquency which may result from given tax rates, and legal tax rate limits imposed upon it. Clearly, however, the amount of tax payable depends as much upon the assessment (tax base) as upon the tax rate. The level of assessments in practice is therefore as significant a datum to the prospective property owner as is the level of tax rates.

Collection The final stage in administration of the property tax is that of collection. Once apportionment is completed and the rates determined for various governments and districts, tax bills can be forwarded to property owners. Evidently the ease of collection depends upon the burdensomeness of the total tax in terms of ability of the property owner to pay. And this will depend upon how heavy the tax is in terms of the income from property, which in turn depends upon the correctness of assessment, the adequacy of equalization, and the height of the tax rate.

If assessments are not adjusted to the decline in true values in depression periods, a high proportion of delinquency will follow. It is here that we see clearly the nature of the fiscal problem resulting from a combination of heavy local dependence upon the property tax and debt limitation. In business depression, property values fall because the income from property falls. This calls for reduction in

assessed valuations without (in the majority of cases) opportunity for increase in tax rates. If the basic functions of local governments plus the unusual relief functions of depression are to be maintained, deficits are inevitable. The enforcement of debt limits means that expenditures must be reduced to conform to the reduction of property tax revenues. Inelasticity of local revenues goes a long way to explain why the financing of the basically local function of relief was necessarily taken over by the federal government in the early nineteen-thirties.

Tax delinquency is an embarrassing fact for government to face. It frequently involves eventual foreclosure of property for unpaid taxes, giving government title over property for which it generally has no use. The taking of private property for tax debts is an action which government would like to avoid. There are two ways of avoiding it: either allowing delinquency to continue indefinitely without foreclosure action, or adjusting assessments and tax rates to the changing ability to pay. The first obviously does not solve the long-run problem, and encourages delinquency on the part of those who otherwise could and would meet their tax obligations. The second clearly is the only satisfactory long-run solution, though some delinquency will occur even under the best conditions of assessment and apportionment. If the steps of assessment, equalization, and apportionment were properly taken, most tax delinquency would not occur. If there were more elasticity in local tax systems, and particularly in local fiscal policy, a principal barrier to assessment revision and reasonable rates would be removed. Then a vigorous delinquency policy could be adopted without hardship to taxpayers and without great embarrassment to government.

THEORY OF THE GENERAL PROPERTY TAX

The "general property tax" contemplates taxation of all items of property—real, tangible personal, and intangible—at a uniform rate and at a uniform percentage of true value. It is frequently referred to as property taxation under the "uniform rule."

In the essentially simple local economies in which property taxation was nurtured, ownership of property was, and could be with reasonable accuracy, taken as a satisfactory index of ability to

pay. As the economy has become more complex, it has become a very bad index. For ability to pay is measured basically in terms of income, and there is very poor correlation between the amount of income and the amount of property owned. The production of income in some lines (*e.g.*, manufacturing) requires the use of a considerable amount of wealth. But the production of income of comparable size in the professions requires relatively little wealth. The comparison suggests that the property used in production measures only very inaccurately the amount of income produced.

Further, the disposal of income reflects very inaccurately the size of that income. Some may prefer to spend income upon durable things (*e.g.*, estates) which represent large property tax bases. Others may prefer to purchase securities, whose taxation as property is contemplated by the uniform rule, but the difficulty of whose assessment means almost complete escape. Still others may prefer a high level of current consumption of nondurable goods and services, which results in the ownership of relatively little property for tax purposes.

Finally, the ability-to-pay principle implies the existence of available income for tax payments. The large family should have a large house, and yet the capacity to pay taxes is clearly not indicated by the size (assessed value) of the house. So long as property ownership is taken as an outward and objective indication of ability to pay, different treatment of individuals with the same assessed value of property (but quite different taxable capacity) is impossible. Fundamentally, the trouble arises because ability runs in terms of income, and there is no close relationship between the amount of property owned and the amount of income.

In a simple agrarian economy where income is mainly income from wealth, reasonable justice in terms of ability to pay can be accomplished through the taxation of wealth. With the increased complexity of the economy it was hoped to eliminate inequities by taxation of intangibles uniformly with wealth. The results have not been good. However, rather than exchange the tax for something better the line of less resistance has been to change the justification. Consequently, justification for the property tax has come to run principally in terms of benefit.

Let us see how well the benefit theory justifies property taxation. The typical modern apology for the property tax lists such benefits as police and fire protection, streets, sidewalks, sewers, garbage and snow removal, and public education, as representing peculiar benefits to property. Undoubtedly benefits do accrue to property from these services. But can any equation be set up between the benefits to a particular piece of property and the amount of taxes it pays? We have previously justified special assessments upon property when the cost of a peculiarly beneficial improvement enhances property value by at least as much as allocated cost of the improvement. Special assessments assume allocable benefits. What benefit therefore remains to justify the regular annual property tax?

In 1944 approximately 80 per cent of total city revenue (exclusive of grants) was derived from the property tax. On the other hand, approximately 80 per cent of total expenditures of these same cities was for functions whose cost can hardly be identified with particular pieces of property. The important items of expenditures of cities in 1944 were education, debt service, public welfare, and police, in that order. Only the last of these can be claimed to have important direct beneficial effects upon property *per se*, and even in this case the protection of persons (and not property) is a large element in the police function. Without laboring the point further, we reiterate that the benefits of public functions are by nature principally general. The identification of benefits received with property tax bills is very largely arbitrary and incapable of acceptance on logical grounds.

Ability, Benefit, and the Incidence of Property Taxes

The theories of ability and benefit as applied to property taxes generally ignore the fact that a considerable portion of such taxes is shifted. Backward shifting in the form of capitalization imposes upon the seller of the property all anticipated future property taxes. This means that in the case of a residence, for instance, the seller bears a large part of the tax. The justification for property taxes has been based upon the taxable capacity of the present owner or the benefits of government to him, while the tax burden is in fact largely upon someone else.

When taxed property is used for business purposes there may be forward shifting in the form of increased price of the product. (This is less common than backward shifting, for, as we have seen, under monopolistic competition such an increase in fixed cost does not result in higher price and smaller quantity.) When forward shifting occurs, the real bearer of the tax is not the property owner, but the buyer of his product. To the extent that such shifting occurs it is absurd to justify the tax in terms of the property owner's ability to pay or of the benefits which accrue to his property from police protection.

Nevertheless, not all property taxes are shifted either forward or backward; part must be borne by the owner himself. In such a case it is incumbent upon the authorities to justify the tax in terms of some theoretical basis. Unless this can be done, the only defense of the property tax is the practical one of tradition. And this is really the only justification remaining for it—society has become so accustomed to it that its burden is taken for granted. Other things being equal, this is a desirable attribute of a tax, but other things are not equal. When theoretical justification is on such questionable ground and administration so poor, there is little consolation in retaining the tax on grounds that to discard it would terminate a long life and require adjustment to a new (though almost inevitably better) tax.

Theory of Intangibles Taxation Taxation of stocks, bonds, mortgages, bank deposits, and other possible forms of intangible property can hardly be justified in terms of benefit. For the direct benefits to bondholders from education, police protection, snow removal, garbage collection, and sewer construction are meager indeed. Taxation of intangibles stands entirely upon the principle of ability to pay, and reflects a grasping at straws when it became apparent that the ownership of tangible property was not a completely satisfactory measure of taxable capacity. For although the property tax was a tax on the thing (property), it was supposed to be measured by the ability of the person (owner). When, therefore, it appeared that many persons with income, and therefore taxable ability, did not own physical property in proportion to that ability, intangibles were added to the property tax lists.

This assumes, however, that intangibles represent a capacity to pay distinct from the physical property that they represent. The fallacy will appear clearly if we use an example. Assume two farms producing exactly equal net income. Let us say that each is worth $10,000. A buys his farm outright by the payment of $10,000 cash. B buys the other farm with a cash payment of $5000 and a mortgage of $5000. The capacity of the two farms to pay taxes is the same (though the capacity of the two *farmers* to pay taxes may not be equal). A and B are taxed on an assessment of $10,000 each. But C, who holds a $5000 mortgage on B's farm is taxed upon his mortgage at the uniform rate. The income from which C's mortgage tax will be paid is the income from his mortgage, which is income from B's farm. In effect, therefore, income from B's farm is taxed 50 per cent per dollar more than is income from A's farm.

If no thought is given to incidence, it may be argued that B should be taxed only upon his equity in the farm ($5000), while C is taxed upon his equity ($5000). Then income from the two farms would be taxed with equal severity. This would be reasonable (shifting aside), but it is not the way property tax laws are drawn. Introducing the factor of shifting, it is almost certain that the mortgage interest which B pays to C includes C's tax. Thus the tax borne by B is actually 50 per cent greater than that borne by A, ignoring the possibility that taxes were shifted backward at time of purchase of the farm.

It is thus seen that double taxation occurs through the taxation of wealth *and* the taxation of rights to that wealth. The principal argument against double taxation follows from the fact that it is not uniform. If everything were taxed twice the effect would be no different than if everything were taxed once at double the rate. In our farm example above we found that two farms exactly alike were treated quite differently, as shown below.

	REAL ESTATE TAX (*at 3% tax rate*)	INTANGIBLES TAX (*at 3% tax rate*)	TOTAL PROPERTY TAX
A's farm	$300	none	$300
B's farm	$300	none	$450
C's mortgage on B's farm	none	$150	

Two alternative methods present themselves for elimination of this injustice. The first would be to provide for uniform double taxation, by taxing all rights to wealth whether or not actual documents exist. The effect would be as follows, assuming that because of uniform double taxation the tax rate could be halved.

	REAL ESTATE TAX (*at 1½%*)	INTANGIBLES TAX (*at 1½%*)	TOTAL PROPERTY TAX
A's farm	$1.50	none	$300
A's equity in his farm	none	$150	
B's farm	$150	none	
B's equity in his farm	none	$ 75	$300
C's mortgage	none	$ 75	

This would represent a highly cumbersome administrative approach to the problem of acquiring justice in the treatment of A and B. The same result could be accomplished much more simply by the outright exemption of intangibles, which would require both A and B to pay real estate tax of equal amounts ($300) on their farms.

The usual objections to such exemption center around the fact that C, who holds property in a mortgage of $5000, is required to pay no tax on it. But any tax on C's mortgage will almost certainly be shifted to B as the borrower, and not borne by C.

Granted that taxation of mortgages results in undesirable double taxation of some property, is the same true of other intangibles? Examples similar to that which we have used in analyzing the double taxation of a mortgaged farm could be set up showing discrimination between a corporation whose stock and bonds are taxed in the hands of their owners in addition to taxation of the physical property, and an unincorporated business having no stock or bonds outstanding. Stocks are indications of ownership of wealth, and not wealth itself. Clearly the income to stocks represents distribution of the income of the corporation; if the real and tangible property of the corporation are taxed as representing ability of the corporation to pay (or benefit enjoyed), ownership of stock does not represent a separate capacity. And in the case of bonds, they are debts of the corporation, similar to mortgages. Taxation of the one is taxation of

the other, and taxation of both is double taxation. Here again elimination of discriminatory treatment involves either complete double taxation of all wealth or exemption of intangibles. The latter is administratively the more sensible.

Property taxation of intangibles is thus open to condemnation on the counts of both theory and practice. Intangibles do not constitute a separate ability to pay nor do they derive significant benefits separate from those accruing to the wealth which they represent. Clearly there are no theoretical grounds upon which their taxation can be justified. The incidence of such taxes is almost inevitably upon the physical property, which makes for highly undesirable concentration of the double burden upon one person. On the side of administration, intangibles largely escape the tax lists, so the persons upon whom their double burden falls are principally those few who are the victims either of admirable honesty or pitiful unsophistication in the ways of evasion. When we combine these criticisms with the fact that the tax is proportional (as are all property taxes) and consequently not well designed to measure real ability to pay, it is difficult to imagine a more completely damning case against any tax. The unsuccessful efforts expended in attempting to bolster administration of intangibles taxation in view of its lack of logical justification is one of the sadder commentaries upon state and local fiscal wisdom.[8]

CLASSIFIED PROPERTY TAXES

Classification of property for tax purposes has been frequently practiced among the states. Under a classified property tax it is intended to treat different types of property differently. Differential treatment may be accomplished in either of two ways: by applying different tax rates to different classes of property, or by applying the same rate to all classes and assessing the different classes at different proportions of full value. An example of the

[8] In 1942 only thirteen states legally exempted all intangibles from property taxes. Twenty others applied special low rates to intangibles by placing them in a special property class. One of these offered the choice of taxation at a special low rate or at general property rates. Fifteen taxed intangibles as general property under the uniform rule. (*Tax Systems*, 9th ed., Chicago, Commerce Clearing House, 1942, pp. 158–9.)

first is the comprehensive system of West Virginia, tabulated below.[9]

	TYPE OF PROPERTY	STATE & LOCAL RATE (1937)
Class 1	Tangible personal property used in agriculture, and agricultural products; all intangible property	5.1 mills
Class 2	Residential real estate; farm real estate	10.1 mills
Class 3	All other property (see exemptions below) situated outside of municipalities	15.1 mills
Class 4	All other property (see exemptions below) situated inside municipalities	20.1 mills
Exempt property:		
	Stock of corporations, property of which is taxed	none
	Interest in any concern whose property is taxed	none
	Household furniture and fixtures in use	none

The Montana comprehensive classification system may be taken as an example of classification of the second type.[10]

	TYPE OF PROPERTY	% FULL VALUE ASSESSED
Class 1	Net annual proceeds of mines and mining claims; mineral rights and reservations in land; royalty interest	100
Class 2	Household goods; farm implements and tools; miscellaneous farm equipment; automobiles and boats	20
Class 3	Livestock and agricultural products; dealer's merchandise; furniture and fixtures used in business	33.33
Class 4	Land with improvements; manufacturing and mining machinery, fixtures and supplies	30
Class 5	Money and credits (but not including shares of stock); property of cooperative rural electrification associations	7
Class 6	Stock of banks and other competing money capital	40
Class 7	All other property (includes shares of stock)	40

These are cases of comprehensive classification. Partial classification frequently occurs by the outright exemption of a given type of

[9] Reproduced from *Tax Systems of the World,* 7th ed., p. 97, by permission of Commerce Clearing House, Inc.
[10] *Ibid.,* pp. 96–7.

property. Three reasons for property classification are evident in the experience of the states. The first is to accomplish greater justice among types of property by adjusting the tax liability to differential capacity to pay. The second is a surrender to expediency—granting concessions to those types of property which, in fact, largely evade taxation under the uniform rule, or to those underprivileged types which possess little opportunity for evasion. The third is to grant tax concessions to favored classes of property, irrespective of ability or of benefit (*e.g.*, improved land, farm property, favored industries).

Do different types of property actually possess different capacities to pay property taxes? It is of course true that some property produces greater net income than does other property. These differences are, however, reflected in capital values of the various property items. The value of a piece of property is determined by capitalization of the amount of the expected net return by the rate of return required upon investment in such property. There are thus three variable determinants of capital value: the amount of annual net income expected, the rate of return required on investments carrying given estimated risk, and the time factor involved in expected return—*i.e.*, the period of time expected to elapse before receipt of income, and the duration of the stream of income. Capital values of the various types of property thus take account of the variables presumed to indicate differences in ability to pay. If, then, all property were assessed at full market value the capacities to pay per dollar of assessed value of all property would be equal.[11] We thus see that differential capacities to pay taxes do not exist in terms of true property values, though failure to assess accurately will frequently give tax bases which apply the tax quite unequally among property types.

Granted that under proper assessment capacity to pay per dollar of assessed valuation is equal for different items of property, there are other capacities which justify special treatment of particular types of property. Specifically, we note differential capacities to shift

[11] This is true of the capacity of *property* to pay, but obviously not true of the capacities of the *owners* of property. In the last analysis property ownership is clearly not a good measure of personal capacity to pay—real taxable capacity must be measured in terms of individual income (from property and other sources).

the tax and differential capacities to evade the tax. The tendency to shift intangibles taxes to the debtor imposes double taxation upon the physical property carrying the debt obligation. The tendency to shift some business property taxes to buyers of the product results in incidence far different from that contemplated by the tax itself. The total effect, therefore, of shifting is to impose tax burdens which are inconsistent with the notion of capacity of property to pay taxes.

The capacity to evade property taxes is high in the cases of intangibles and of much tangible personal property. This being the case, the only practicable alleviation of inequities among property owners of these classes is to place such property types in an exempt class. Such exemption may be considered a type of classification for tax purposes.

There is a further class of real property which offers practical difficulty from the point of view of public policy. Lands containing mineral or other exhaustible resources and lands used for production of timber cannot be taxed like farm land or residential land. The difficulty lies not in the theory of property taxation but in practical conflict between tax policy and conservation policy. Land containing mineral resources, if taxed annually on a base representing its true current value, encourages the rapid and often wasteful use of those resources. Since their quantity is limited, the total amount of tax imposed on them over the period of their existence will vary inversely with the rapidity with which they are used. In the interest of conservation and orderly use of such deposits, it is desirable to grant special treatment which will remove the tax premium upon rapid exhaustion.

Taxation of forest land presents a somewhat similar problem. The economic use of forest resources requires that timber be cut only at the age most appropriate for lumber production. And conservation policy requires that cut timber be replaced with growing timber. Application of the usual property tax to timber lands would assess annually those lands at values which include the current value of standing timber on them. The long period required to grow timber to economic size would thus involve payment of a succession of annual taxes before any return is realized from sale of the product.

Clearly this places a premium upon early cutting and discourages the planting of replacement timber.

Proper taxation policy should remove the urge to waste and at the same time impose tax obligations upon such property which are in line with those imposed upon other taxed property. It is generally agreed that the logical solution is to combine low annual taxes upon such property with special yield taxes when the product is marketed. Such an arrangement would involve special classification of such lands for property tax purposes.

Our general conclusion with respect to classified property taxes is that, if the property tax is to serve reasonably well, abandonment of the general property tax (uniform rule) is essential. Exemption of intangibles is indicated because they possess no taxable capacity and enjoy no benefits distinct from the wealth which they represent, and because practically it is impossible to bring a sufficient quantity of them into the tax lists to avoid serious injustice among taxpayers. When they represent indebtedness they are typically shifted to the debtor-owner of wealth, and when they represent ownership the wealth which they represent is twice taxed. It is difficult to believe that such discrimination can have been consciously intended.

Exemption of tangible personal property is necessary to avoid the injustices arising out of evasion and the practical impossibility of proper assessment. It may be desirable for special reasons to impose special property taxes upon certain items of such property which can be brought into the rolls by recourse to registration records and can be reasonably assessed by reference to market prices of standardized items. Motor vehicles and boats represent virtually the only types of tangible personal property items which possess these characteristics.

Classification for exemption of such large areas of general property would limit the property tax to real estate—land and buildings. Such delimitation would reduce property taxation to administrable proportions. More scientific assessment methods could then be widely adopted under state authority, and the assessment task would be greatly simplified. Within the area of such limited applicability of the property tax the only special classification required would be that of lands bearing exhaustible mineral and timber resources.

Land in this exceptional category would be assessed for annual tax purposes as if it possessed no such resources while at the time mineral resources are extracted or timber resources marketed a special yield tax in lieu of additional property taxes would be imposed.[12]

COUNTER-CYCLE USE OF PROPERTY TAXES

Counter-cycle tax policy can make little or no use of property taxes. Annual assessment and collection of property taxes offer little opportunity for the type of immediate adjustability in payments required to serve counter-cycle purposes. In addition, the local nature of property tax administration militates strongly against the possibility of coordinated national counter-cycle property tax policy. And finally, the poor correlation of property ownership with personal income suggests relatively little effect upon consumption and investment were it feasible to build counter-cycle elasticity into the tax. In fact the continued existence of the property tax either in its present form or in the limited form suggested herein discourages adoption of state-collected, locally-shared personal income taxes which offer far brighter prospects for effective counter-cycle use.[13]

CONCLUSION: DISPOSITION OF THE PROPERTY TAX

The persistence of property taxation, still generally under the uniform rule, is difficult to explain on logical grounds. Property ownership represents a highly inadequate measure of ability to pay taxes. The indeterminateness of general incidence suggests great difficulty in predicting or in allocating the burden of the tax, and its vulnerability on account of difficulties in assessment and ease of evasion serves to climax a condemnation virtually complete.

[12] It is hoped that the reader realizes that the proposals here made are themselves a surrender to the inevitability of property taxation. Ideally the whole property tax concept should be eliminated, and state and local taxes on incomes substituted. But such radical departure from tax custom is hardly to be expected in the foreseeable future. For this reason, first aid in the form of classification (exemption) to alleviate the most immediate and evident pains is here recommended and described.

[13] State income taxes will be discussed in the following chapter. Simplification of the tax system—federal, state, and local—will be discussed in Chapter 24. It is therefore not desired to pursue this suggestion further at this point.

Its sole virtue lies in its age. Legislatures and taxpayers treat it with the veneration and deference commonly bestowed upon old age in polite society. There is no escaping the conclusion that tax inertia is the principal cause of its longevity, while the ease with which real property taxes are shifted backward through capitalization, the ease with which both tangible and intangible property taxes are evaded, and the comfort of competitive underassessment, all help to make the property tax appear less burdensome and consequently more attractive than a fresh substitute.

For these reasons it is highly unlikely that the property tax as the principal revenue dependence of local government will soon pass out of existence. However, a gradual decline is to be anticipated, encouraged by the growth of grants-in-aid to local governments from funds raised centrally, and by pressure of the growth of local expenditures which jolts local governments out of their inertia toward a search for new revenue measures. The erosive effects upon the general property tax of modern tendencies toward broader exemption and favorable classification can be expected to continue. But in the meantime major amputations are in order—with respect to intangible and to tangible personalty—in the interest of elementary justice. Without such vigorous action the disease of disintegration of taxpayer morale now attending the property tax may spread to other and more desirable revenue measures.

RECOMMENDED READINGS

Tax Policy League, *Property Taxes: A Symposium*, N. Y., Tax Policy League, 1940.

The papers cover a variety of subjects related to property taxation. Especially recommended are Chapters 1 ("Importance of the Property Tax in State and Local Tax Systems"), 7 ("Some Observations Concerning the Classified Property Tax"), 10 ("The Property Tax as a Measure of Ability"), 11 ("The Property Tax as a Benefit Tax"), 13 ("Capitalization and Shifting of the Property Tax"), and 16 ("Improvements in Personal Property Tax Administration").

Jensen, J. P., *Property Taxation in the United States*, Chicago, University of Chicago Press, 1931.

Property taxation has changed little since this book was published. Though it is not recent, it is largely current. Chapters should be selected according to the phase of the subject in which the reader is interested.

Leland, S. E., *The Classified Property Tax in the United States*, Boston, Houghton Mifflin, 1928.

A considerable part of the book is now out of date. Nevertheless, Chapters 2, 4, 5, and 6, dealing with the theory of classification, will be instructive.

CHAPTER 16

PERSONAL INCOME TAXATION

Taxes imposed upon the incomes of individuals have attained major revenue importance in federal and state governments in recent years. In addition, nearly all recommendations for overhaul of tax systems call for even greater scope for these taxes. For these reasons we shall give particularly careful attention in our analysis to taxes upon personal net income. In this chapter we shall describe existing personal income taxes, their history, and their current revenue importance. In the three chapters following we consider problems of income taxation, indicating several suggestions for improvement and the area of its application. In Chapter 24 we shall consider the place of personal income taxes in a logical and simplified program of federal, state, and local taxation.

Our earlier discussion has emphasized the importance of two basic facts in our tax thinking: (1) all taxes are eventually paid out of personal income, and (2) intelligent use of taxes implies knowledge of their incidence. The personal income tax recommends itself on both counts. Since the base of the tax *is* personal net income, it aims directly at the income streams from which taxes are eventually paid, and thus avoids the vagaries of indirect approaches through property ownership or purchases of particular goods. We have further noted (Chapter 12) that the incidence of a personal net income tax is relatively simple and well known—it is generally upon the income receiver and cannot be shifted.

RECENT REVENUE IMPORTANCE OF PERSONAL INCOME TAXES

Table 27 indicates the relative importance of personal income taxes in the revenues of the federal government for selected years since 1915. The statistics are not entirely accurate, and tend to err by attaching less relative importance to personal income taxes than they deserve. This error arises out the fact that in varying degrees from year to year the federal corporation income tax—not included in personal income tax collections in the table—represented collection at the source of personal income taxes on corporate dividends.[2]

TABLE 27 Federal Personal Income Tax Revenues, Selected Years, 1915–1945 [1]

YEAR	PERSONAL INCOME TAX REVENUES (*$ million*)	TOTAL REVENUE RECEIPTS (*$ million*)	RATIO OF INCOME TAX REVENUES TO REVENUE RECEIPTS (*%*)
1915	61	698	8.9
1920	1,075	5,723	18.8
1925	735	3,608	20.4
1930	1,147	4,178	27.5
1935	527	4,030	13.1
1940	1,496	5,387	27.8
1945	19,146	46,457	41.2
1947 (Est.)	18,637	40,230	46.3

[1] Sources: 1915–1940: *Statistical Abstract,* 1916, p. 627; 1922, p. 566; 1928, p. 179; 1932, p. 173; 1939, p. 179; 1943, p. 251.
1945: *Annual Report of the Secretary of the Treasury,* 1945, pp. 479–80.
1947: Table 3, supporting the *Budget Message of the President* for the year ending June 30, 1948, p. A6.

[2] Full discussion of this point must be postponed until we discuss the federal corporation income tax, in the two following chapters. Briefly, until 1936, individuals did not pay normal tax on cash dividends from corporate stocks, because the corporation had already paid a tax on the earnings from which dividends were distributed. However, individuals did pay surtaxes on dividend income. In 1936 individuals were subject to both normal and surtaxes on dividend income, in spite of the fact that the corporation paid income tax on its earnings before distribution. It is therefore clear that (until 1936) some part of corporate income taxes represented personal income taxes paid at the source.

The relative revenue importance of the federal personal income tax shows rather wide variability from period to period. This variability is due to (1) long-term growth in importance of this tax from its beginning in 1913 to the present, (2) fluctuations in national income (particularly evident in 1935), and (3) rise and fall in the use of other tax measures (*e.g.*, intensive use of commodity taxes in 1935). There is clear indication, however, that in spite of varying relative revenue importance of the personal income tax, it has been for some time a highly significant element of the federal revenue system.

Use of personal income taxes by states has shown gradual increase over time. Twenty-nine states used such taxes in 1946; [3] the rates of tax were uniformly low in comparison with federal rates, and exemptions were relatively high. The revenue produced by state individual income taxes in 1944 was $316 million.[4] This represented only 5.3 per cent of total state revenues other than federal grants, and indicates the relative unimportance of personal income taxes among the states as a group. And even in those states employing such taxes, their revenue contributions are relatively minor. It is undoubtedly true that the personal income tax is not more important among state governments largely because of supposed preemption of this field by the federal government.

Use of personal income taxes by local governments is virtually nonexistent. Philadelphia has a city personal income tax producing approximately one-fourth of its tax revenues. The District of Columbia employs such a tax in a minor way, as do Toledo and St. Louis. It is notable that in none of these cases except the last is the city located in a state employing a personal income tax.

EARLY HISTORY OF FEDERAL PERSONAL INCOME TAXATION

The Civil War Income Tax The first federal tax upon personal incomes was legislated in 1861, to be payable in 1862. It was imposed upon all individual income, at a flat rate of 3 per cent and

[3] From *Tax Systems*, 1946, Chicago, Commerce Clearing House, pp. 141–7. Two states are excluded from this count, as the "individual income taxes" in force in New Hampshire and Tennessee were merely taxes on interest and dividend income, designed as substitutes for property taxation of intangibles.

[4] Bureau of the Census, *State Finances*, 1944, p. 9.

with exemption of the first $800 of income per year. In 1862 rates and personal exemptions were altered, and fragmentary progression was introduced into the tax. Under this tax, income between $600 and $10,000 per year was taxed at 3 per cent, and income over $10,000 was taxed at 5 per cent. A further increase in rates occurred in 1865, when incomes between $600 and $5000 were taxed at 5 per cent and all over $5000 at 10 per cent. The 1865 law represents the most intensive application of the Civil War income tax. In 1866 some 460,000 persons paid personal income taxes of approximately 73 million dollars.[5] The tax was repealed in 1872, having produced revenues totaling approximately 350 million dollars since 1861.

The question of constitutionality was inevitably raised against the Civil War income tax,[6] although by and large it was accepted almost wholeheartedly during the period of war enthusiasm. The constitutional issue was raised over Article I, Section 9, which forbade federal levy of a "capitation or other direct tax" unless it was levied "in proportion to the census or enumeration." Since the tax in question was levied according to income and not according to census enumeration, the nub of the problem was whether a personal income tax is a direct tax. The plaintiff maintained that the tax was direct, and cited an imposing list of then eminent economists, including Adam Smith, John Stuart Mill, and J. B. Say, whose writings unquestionably testified to the directness of the tax in the economic sense. The Court found, however, that ". . . *direct taxes,* within the meaning of the Constitution, are only capitation taxes, as expressed in that instrument, and taxes on real estate; and that the tax of which the plaintiff in error complains is within the category of an excise or duty." [7] A personal income tax was thus found to be legally an indirect tax, and its use declared to be within the federal power.

The Income Tax of 1894 [8] Congress enacted a personal income tax law in 1894 which was to tax personal incomes in

[5] Most of the facts concerning the Civil War income tax are taken from Davis R. Dewey, *Financial History of the United States,* 11th ed., New York, Longmans, 1931, pp. 305, 306.

[6] *Springer* v. *United States, 102 U. S.,* 586.

[7] *Ibid.*, 602.

[8] *Cf.*, Dewey, *op. cit.*, pp. 456–8.

excess of $4000 annually at a fixed rate of 2 per cent. The law was passed with the support of western and southern legislators over the virtually unanimous opposition of the east. The tax, with its high personal exemption, would have been borne almost exclusively by residents of the eastern states, and was regarded as a discriminatory attack upon the wealthy classes.

In *Pollack* v. *Farmers' Loan and Trust Co.*,[9] the Supreme Court determined the law to be unconstitutional with respect to the taxation of the income from real estate and the income from municipal securities. With respect to the first point, the issue was whether a tax on the income from real estate was a direct tax, and therefore unconstitutional unless levied according to a census enumeration. The Court found that usage both in tax literature and in English judicial practice identified such a tax as being direct. Nevertheless, as in *Springer* v. *U. S.*, the Court was compelled to accept not general usage but the intent of the framers of the Constitution as to the meaning of the term. The opinion stated:

> Nothing can be clearer than that what the Constitution intended to guard against was the exercise by the general government of the power of directly taxing persons and property within any state through a majority made up from other states.[10]

Thus a tax on property would contravene the constitutional protection of the minority against the majority, and "we are of the opinion that the law in question, so far as it levies a tax on the rents or income of real estate, is a violation of the Constitution, and is invalid." [11]

Concerning the validity of a tax on the income from municipal securities, the Court concluded that such a tax is "a tax on the power of the states and their instrumentalities to borrow money, and consequently repugnant to the Constitution." [12] On a rehearing of the case in 1895 [13] to rule upon two points in the original case upon which the Court was equally divided, it was determined that the tax on the income from personal estates was a direct tax, and that the law did not meet the constitutional requirement of uniformity.

[9] *157 U. S. 429* (1894).
[10] *Ibid.*, 583.
[11] *Ibid.*
[12] *Ibid.*, 586.
[13] *158 U. S. 601.*

The 1894 tax was therefore abortive; the decision of the Court—a complete reversal of the decision in *Springer* v. *U. S.*—closed the way to federal taxation of personal incomes except through amendment to the Constitution.

The Corporation Tax of 1909 and the Sixteenth Amendment In the *Springer* case the Court had declared that the Civil War tax was an excise (an indirect tax) and thus the constitutional rule of apportionment was not applicable. This conclusion with respect to excises was reiterated in the *Pollack* decision, though in that decision the personal income tax was declared to be a direct tax and not an excise. In 1909 a federal excise upon corporations for the privilege of doing business was enacted, imposing a 1 per cent rate upon the net income of corporations in excess of $5000. This tax was interpreted to be an excise *measured by net income*, and thus was held to be an indirect tax.[14]

Modern taxation of personal incomes in the United States dates from ratification of the Sixteenth Amendment in 1913. The Amendment reads:

> The Congress shall have power to lay and collect taxes on incomes, from whatever source derived, without apportionment among the several States, and without regard to any census or enumeration.

A personal income tax law was passed immediately after ratification of the Amendment (1913), largely to offset the revenue losses anticipated from reduction of certain tariff rates by legislation of that year.

The principal features of the Act of 1913 were the following: (1) A *normal tax* of 1 per cent on net income over $3000 per year ($4000 for a married couple). (2) A *surtax* (in addition to the normal tax) upon higher incomes, at progressive rates of 1 per cent on incomes between $20,000 and $50,000 and reaching a maximum of 6 per cent on incomes over $500,000. (3) Treatment of capital gains (realized gains from the sale of capital assets) as income, and capital losses as deductions from income. (4) Use of the corporation income tax as an instrument for collection of taxes on dividend income at the source. By this arrangement the 1 per cent tax on

[14] In *Flint* v. *Stone Tracy Co.*, 220 U. S. 107.

corporate income was a substitute for the 1% normal tax on individual income derived from corporate dividends. The individual did not pay normal tax on dividend income because the corporation had paid it for him.[15]

OUTLINE OF FEDERAL INCOME TAX COMPUTATION

We shall briefly and broadly outline the steps in calculation of the amount of personal income tax payable, primarily to give the reader an impression of the nature of net income for federal tax purposes, and to lay the foundation for later analysis of problems in income tax theory and practice.

It is necessary to keep in mind that a tax imposed upon personal net income requires uniform definition of net income. The law must so define net income that it means essentially the same thing to many different taxpayers, deriving their incomes from different sources and in different forms. This definition of net income must, for practical reasons, be spelled out in terms of the items included in and excluded from gross receipts, and the specific items deductible from gross income to arrive at a uniformly determined figure of net income. In the discussion which follows we shall be interested in broad categories of items, and not in the intricacies of unusual cases.

1. *Gross Receipts* The gross receipts of the individual represent his receipts during the year in money and in kind. They are in general salaries, wages, interest, dividends, rents, royalties, and profits. If the individual's salary is paid partly in money and partly in kind (*e.g.*, the use of a house), both are included in gross receipts. Although practice has varied among the revenue acts, capital gains and losses typically enter to some extent into the calculation of gross receipts. Capital gains represent the net appreciation realized from sale during the year of capital assets not directly

[15] Actually, collection at the source was more widely employed than is indicated above. The Act of 1913 required all persons and corporations to deduct the tax of 1 per cent on all rent, interest, and salaries over $3000 paid to other persons. The income recipient was then excused from payment of normal tax on such income upon which the tax had been paid at the source. We shall be primarily interested, however, in the problem of integration of corporate and personal income taxes; it is for this reason that we have above pointed particularly to collection of the tax on dividend income at the source.

a part of the taxpayer's business or profession.[16] Gross receipts thus include in general everything received during the year by the taxpayer.

2. *Gross Income* Certain stated deductions are made from gross receipts in order to calculate gross income. The more important of these exclusions from gross income are:

a. Benefit payments received during the year from life insurance policies, annuities, and endowments. Since the premiums previously paid on such contracts are not deductible for tax purposes, it would be unjust to tax both the income used for premium payment and later the proceeds which these premiums had purchased. Clearly both are not income, any more than withdrawals from one's bank deposit constitute the receipt of income.
b. Gifts and bequests received. These are deductible from gross receipts of the donee, since the donor has already paid the tax upon them as a part of his income.
c. Interest received on state, local, and some federal debt obligations. Interest on state and local obligations is excluded as a matter of practice, encouraged by various court decisions, while income from some federal securities is exempt by contract provisions in the securities.
d. Certain payments to military personnel. This is a matter of specific legislative favoritism to this class of government employee; the reasons for it are obvious.

The exclusions from gross income are thus designed to avoid double taxation of the same income, and to exempt certain types of income for special reasons.

3. *Net Income* Having determined gross income of the individual, various further deductions are made to arrive at net income. The principal deductible items are:

a. Business expenses. When gross income is of a business nature, clearly business expenses (as distinct from personal expenses) must be deducted before net income can be determined. Such

[16] Analysis of the treatment of capital gains and losses will appear in the following chapter.

expenses will include payments for wages, materials, interest, depreciation, etc. When gross income is not from business, but in the form of salaries or wages, certain comparable deductions are allowed. Interest paid on personal indebtedness is deductible on grounds that it reduces the "netness" to the individual of his salary or wage.

b. Net losses from fire, theft, or other casualty, and bad debts. These are capital losses of special types not elsewhere provided for in the law. They represent impairment of the capital position of the taxpayer, the items lost having been previously purchased with income subject to tax.

c. State and local taxes paid. This deduction is allowed to avoid taxing income already contributed to government. The major exception to this class of deductions is special assessments, which are not deductible on the grounds that they represent payments for improvements which directly enhance the value of property owned.

d. Charitable contributions. The contributions deductible are only those to recognized organized charities, and freedom of such contributions from tax liability is a measure to encourage these charities. Contributions to religious organizations and non-profit educational institutions are similarly deducted. The over-all amount of such deductions allowable is established by the tax law, the limit generally being stated as a percentage of net income.

e. Medical and dental expenses. This deduction was first allowed by the 1942 law. It relates to those extraordinary expenses which, unless deductible, would make net income an inaccurate measurement of ability to pay. The amount of such expenses deductible has so far been limited to 5 per cent of gross income.

f. Alimony paid. This deduction avoids double taxation of income used for payment of alimony. Congress has recently transferred its sympathies in the matter of broken marriages. Formerly alimony received was excluded from gross income, and the payer was subject to tax on that part of his income used for alimony payment. Currently the payer is allowed to deduct alimony paid and the receiver enters it as gross income and pays the tax.

g. Over-all deductions. The taxpayer is (in recent laws) given an

option of a lump-sum deduction in lieu of listing specific items indicated above. The "short form" is constructed on the assumption of deductions amounting to about 10 per cent of gross income; while incomes in excess of $5000 may take a standard deduction of $500. This provision is made in the interest of simplifying the task of preparing returns.

It will be seen that the deductions from gross income represent principally costs of earning the net income, unusual and uncontrollable expenses, and specific contributions. After these deductions from gross income are made, the remainder is net income.

4. *Application of Tax Rates* Net income as computed by the steps outlined above is still not the base of the tax. The base, or "taxable net income," is determined by subtracting the personal exemptions from net income. Allowance of the personal exemption and credit for dependents provides a tax-free amount of net income supposedly adequate for the maintenance of a minimum standard of living. Clearly some allowance for living expenses must be made if the tax is to be adjusted to ability to pay. On the other hand, it would be infeasible to allow the individual to deduct an amount which he feels is necessary living expense, or what he has actually spent as living expenses. Such a provision would allow so much latitude as to defeat the possibility of equal treatment among taxpayers. The amount of the personal exemption has varied as frequently and almost as widely as the rates of tax throughout the three decades of modern use of the personal income tax.

When taxable net income is computed, two taxes are independently applied to that base. The normal tax has generally been at a flat rate, while the surtax has more recently carried steeply progressive rates.[17] The Revenue Act of 1945 (applicable to 1946 and 1947 incomes) for the first time applied normal and surtax rates to the same base.[18] Previous to that Act, normal tax net income was

[17] Some of the income tax laws during the period have imposed minor progression under the normal tax.

[18] With the one exception that certain government bond interest is excluded from the normal tax base while it is included in the surtax base. The existence of outstanding bonds carrying normal tax exemption appears to have been the obstacle which has made impossible the combination of normal and surtax into a single schedule of progressive rates on a single income base.

different from surtax net income. The principal factors in this difference have been dividends from taxed corporations (included in surtax base but not in normal tax base), some federal bond interest subject to surtax and not to normal tax, and frequently a larger exempt minimum before surtax liability begins.

Through the period since 1913, marked changes in rates and personal exemptions have occurred in the federal income tax. We have seen that the rates applied in the 1913 law were: a normal tax rate of 1 per cent on income above the personal exemption of $3000 per year ($4000 in the case of married couples), and surtax rates of 1 per cent on incomes between $20,000 and $50,000, and reaching a maximum of 6 per cent on that part of surtax net income in excess of $500,000. By contrast, the rates applied by the 1945 Act (effective on 1947 incomes) were as illustrated on p. 379.

The complete schedule of surtax rates in the 1945 Act is reproduced here in order to demonstrate three facts worth noting. The first is that modern personal income tax rates have increased impressively since 1913, until there is relatively little room for further increase at any point in the schedule, especially in the highest brackets. The second fact is that the highly progressive character of the personal income tax is found in the surtax and not in the normal tax. The third is that, contrary to a view widely held, a higher income before taxes leaves a higher income after taxes, in spite of steeply progressive rates. Surtax net income within a given bracket pays at the same rate no matter what the size of total surtax net income of which it is a part. It is therefore not possible to have larger net income after taxes by keeping income below the higher-rate brackets, although the rate of taxation in the higher brackets may, in unusual cases, make the receipt of larger income not worth the effort required to acquire it.

Our outline of the structure of the federal personal income tax has been intended to acquaint the reader with the American technique of taxing personal incomes. We have omitted many details, and the characteristics listed are not found in all federal income tax laws since 1913. We shall have occasion to treat some aspects of the tax more fully in the following chapter. Nevertheless, there are certain tax objectives clearly evident in our skeletal outline. In the first

Normal Tax: 3% on net income in excess of personal exemption of $500 each for the taxpayer and his dependents. (The tax thus computed is then reduced by 5%.)

Surtax: (Surtax net income is net income less the same personal exemptions allowed in computing normal tax net income plus some bond interest.

IF SURTAX NET INCOME IS:	THE TENTATIVE SURTAX IS:
Not over $2,000	17% of surtax net income
Over $ 2,000 but not over $ 4,000	$ 340, plus 19% of excess over $ 2,000
" 4,000 " " " 6,000	720, " 23% " " " 4,000
" 6,000 " " " 8,000	1,180, " 27% " " " 6,000
" 8,000 " " " 10,000	1,720, " 31% " " " 8,000
" 10,000 " " " 12,000	2,340, " 35% " " " 10,000
" 12,000 " " " 14,000	3,040, " 40% " " " 12,000
" 14,000 " " " 16,000	3,840, " 44% " " " 14,000
" 16,000 " " " 18,000	4,720, " 47% " " " 16,000
" 18,000 " " " 20,000	5,660, " 50% " " " 18,000
" 20,000 " " " 22,000	6,660, " 53% " " " 20,000
" 22,000 " " " 26,000	7,720, " 56% " " " 22,000
" 26,000 " " " 32,000	9,960, " 59% " " " 26,000
" 32,000 " " " 38,000	13,500, " 62% " " " 32,000
" 38,000 " " " 44,000	17,220, " 66% " " " 38,000
" 44,000 " " " 50,000	21,180, " 69% " " " 44,000
" 50,000 " " " 60,000	25,320, " 72% " " " 50,000
" 60,000 " " " 70,000	32,520, " 75% " " " 60,000
" 70,000 " " " 80,000	40,020, " 78% " " " 70,000
" 80,000 " " " 90,000	47,820, " 81% " " " 80,000
" 90,000 " " " 100,000	55,920, " 84% " " " 90,000
" 100,000 " " " 150,000	64,320, " 86% " " " 100,000
" 150,000 " " " 200,000	107,320, " 87% " " " 150,000
" 200,000	150,820, " 88% " " " 200,000

(The tentative surtax thus computed is then reduced by 5%.)
(Under no circumstances may the combined normal and surtax rates exceed 85½% of net income.)

place, it is intended to include for tax purposes income of all types, avoiding the hit-and-miss character of other taxes which, although they are paid from personal income, are not imposed directly upon it.[19] In the second place, the tax takes elaborate cognizance of the principle of ability to pay, in its working definition of income as

[19] The reader is advised that the term "income" may have various meanings and the meaning adopted in federal income tax practice is only one of them. It seems unwise, however, to raise the question seriously at this point, for it will be treated in the following chapter.

represented by the list of exclusions, deductions, and exemptions, in its provision for an untaxed minimum of income required to maintain a minimum standard of living, and in its progressive schedule of rates. There is, however, room for endless argument whether any given act has accomplished reasonable justice among income classes, for there are few benchmarks for absolute measurement of justice. Nevertheless, there is ample evidence of serious and reasonably successful efforts to cut through the confused miscellany of gross personal receipts toward a practicable and uniform definition of *net* income which represents ability to pay. And finally, one becomes acutely aware of the multitude of points at which adjustment becomes possible—adjustment toward greater equity if there be need for it, and adjustment to accomplish compensatory objectives of a counter-cyclical nature. At the same time, the very complexity of the measure which provides these opportunities for adjustment presents problems of administration which can be met only under conditions of high taxpayer morale.

COVERAGE OF THE FEDERAL PERSONAL INCOME TAX

It was not until early in the Second World War that the federal personal income tax was extended to include a major portion of the income receivers of the United States. This extension of coverage was dictated by great need for revenue and by the anti-inflation program. Continuing post-war revenue needs, coupled with a realization of the desirability of taxation by means of the personal income tax, suggest a probable continuation of extended coverage rather than a return to pre-war taxation of a few higher-income receivers.

Table 28 presents certain data demonstrating personal income tax coverage for selected years between 1916 and 1942. It will be noted that the proportion of the population making returns was extremely small prior to 1942. If we assume (liberally) that there were four dependents (non-income receivers) per income receiver, the proportion of income receivers making personal returns between 1916 and 1939 ranges from 2 per cent to 34 per cent. That is, under the assumption of one income receiver to each five persons, not more than one-third of the income receivers were required to make a

TABLE 28 Personal Income Tax Coverage, Selected Years, 1916–1942 [20]

	RETURNS			TAX PAID		
	Total Number (thousands)	*% of Population*	*Net Income Reported ($ millions)*	*Total ($ millions)*	*Per Capita (dollars)*	*Per Return (dollars)*
1916	437	.4	6,298	173.3	1.72	396.57
1918	4,425	4.2	15,925	1,127.7	10.88	254.84
1920	7,260	6.8	23,736	1,075.0	10.08	148.07
1924	7,370	6.5	25,656	704.2	6.22	95.55
1929	4,044	3.3	24,801	1,001.9	8.24	247.74
1933	3,723	2.9	11,009	374.1	2.97	100.48
1936	5,413	4.2	19,240	1,214.0	9.45	224.27
1939	7,716	5.9	22,908	928.7	7.10	120.36
1942	35,973	26.9	79,878	7,308.6	54.64	203.17
1945	42,891	30.7		18,265.0	130.75	425.85
1947 (Est.)	43,500	30.4		17,001.3	118.88	390.84

return in any year prior to 1942 included in the table. And some varying proportion of those making returns paid no tax even though they were required to make the return for information purposes. In 1942 there were estimated to be 51 million persons employed, exclusive of those in the armed services.[21] The 36 million personal income tax returns of that year indicate coverage of approximately 71 per cent of income receivers.[22]

The proportion of the population making returns in any given year will depend principally upon two variable factors: (1) the size and distribution pattern of national income, and (2) the provisions of the tax law itself respecting the amount of income exempt from taxation. The increased number of returns in 1942 was due both to

[20] Figures for 1916–1942 of total returns, net income reported, and total tax paid taken from Treasury Department, *Statistics of Income*. Population percentages calculated from census statistics published in *Statistical Abstract of the United States*. Figures for 1945 and 1947 taken from Hearings, *Individual Income Tax Reduction*, Committee on Ways and Means, Washington, 1947, p. 32.

[21] Census estimate. *Cf.*, *Statistical Abstract*, 1944–45, p. 127.

[22] Recognizing, of course, that the relation of income tax returns to the number of employed persons does not give an exact proportion of *income receivers* making returns. Some returns were made on income from sources other than employment, and some members of the armed services made returns. Nevertheless, the relation is a useful ready approximation.

increased incomes and radically reduced personal exemptions. The decrease in number of returns in 1933 was due to marked decline in national income, reducing the number of returns in spite of a significant lowering of exemptions by the Act of 1932.

The total of net income reported in tax returns (See Table 28) will be determined by the same two factors discussed in the preceding paragraph—size and distribution of national income, and amount of exempt income.[23] The total of tax paid (column 5) depends upon the level of income, the personal exemption, and the schedule of rates applicable in the law. Of the three years (1924, 1933, 1939) shown in the table in which there was marked decline in total tax paid, the first and third are due to rate reductions and the second to reduced national income. The same facts are evident in taxes paid per capita. The amount of taxes paid per return (last column) through the period considered suggests little with respect to the variables involved. Generally speaking, a high tax per return indicates high rates on taxable income. This may result from concentrating taxes only upon relatively high incomes, as was the case in 1916[24] and to a lesser degree in 1929, or from imposition of heavy rates upon the majority of incomes, as in 1942, 1945, and 1947.

An important determinant of the number of persons subject to tax is, of course, the amount of individual income granted exemption. Because the income distribution pattern is such that the large majority of individuals receive net incomes (as defined by the tax law) amounting to less than $3000 per year, a relatively minor change in personal exemptions will cause marked change in the number of persons subject to tax. Estimates showing variations in probable income tax coverage and revenues with minor variation in exemptions under conditions obtaining in early 1947 are given in Table 29.

[23] "Exempt income" as used in regard to net income reported refers to that amount of gross income which excuses the individual from making a return. Some persons making returns pay no tax, and "tax-exempt income" may thus differ from "return-exempt income."

[24] Personal returns in 1916 were principally surtax returns (at relatively high rates), since a large part of normal tax (typically at low rates) was collected at the source. See pp. 384–85 *infra* for discussion of collection at the source prior to 1918.

TABLE 29 Estimated Number of Individual Income Taxpayers and Revenue Under Various Exemptions, 1947 [25]

EXEMPTIONS: a. Single persons; b. Married couples; c. Additional dependents (each)	Number of Taxpayers with Net Income Under $3000 (000)	Number of Taxpayers with Net Income Over $3000 (000)	Total Number of Taxpayers (000)	Total Expected Revenue ($ million)
1. a—$500; b—$1000; c—$500	40,813.1	7,731.5	48,544.6	16,692.0
2. a—$600; b—$1200; c—$600	36,232.4	7,584.4	43,816.7	15,046.1
3. a—$700; b—$1400; c—$700	30,748.6	7,268.4	38,017.0	13,658.3
4. a—$800; b—$1600; c—$400	31,811.4	7,680.2	39,491.6	13,383.2

Much may be said for broad coverage of incomes for tax purposes. This is particularly true if the extension of personal income taxation takes place at the expense of other less attractive tax measures—*i.e.*, substitution of personal income taxes for other forms. For as we have seen, the objectives of taxation, in terms of known incidence and controlled allocation of burdens, are far more nearly possible of accomplishment under the personal income tax. There is the further morale advantage of direct taxation, in which tax payment is a separate act on the part of the payer. The taxpayer is then aware of the taxes he pays, and the act of tax payment is generative of an interest in the financial affairs of government. No such morale advantages inhere in tax schemes which hide the tax as an indefinite and unknown element of the price of a good.

COLLECTION AT THE SOURCE [26]

Payment of the tax on income on the occasion of its realization has for a long time been an integral part of the British system. Collection at the source has been utilized by the federal government of the United States to a greater or lesser degree since

[25] The estimates are made on the assumptions of tax rates effective in 1947 under the Revenue Act of 1945, and national income of $166 billion. Adapted from Table G, accompanying the testimony of the Secretary of the Treasury, *Individual Income Tax Reduction*, Hearings, House Committee on Ways and Means, on H. R. 1, Eightieth Cong., 1st Sess., 1947, p. 32.

[26] A condensed and very useful treatment of the use of collection at the source is George E. Lent, "Collection of the Personal Income Tax at the Source," *Journal of Political Economy*, October, 1942, pp. 719–37.

the beginning of the modern income tax in 1913. Of those states employing personal income taxes, only a small minority utilize collection at the source. The British plan dates from 1803, and has been applied to investment income and to salaries paid by the government and by the railroads since that time.[27] Collection at the source involves deduction of the tax on personal income by the maker of the income payment. The tax is thus withheld on the occasion of the realization of income, and the income receiver is thereafter exempt from personal tax upon this tax-paid income. The objective is to make tax collections from relatively few sources, obviating a large number of small individual returns.

The 1913 federal income tax in the United States provided for extensive use of collection at the source by two methods. The first required any person or concern making payment of wages, salaries, interest, etc. (except dividend payments) to any individual in excess of $3000 to deduct the 1 per cent normal tax at the time of payment. The receiver of the income was then not taxed under the 1 per cent normal tax upon the income so received, but he was required to pay surtax if his total net income was large enough to be subject to it. The second method of collection at the source worked through the 1 per cent corporation net income tax. The corporation paid this tax on its net income, and dividends received by the individual were exempt from the 1 per cent normal tax. Thus, many individuals had all or a part of their normal tax paid at the time of receipt. Those whose incomes were of the business type, from the sale of goods or services, were subject to payment of normal taxes, since there was no vehicle for deduction at the source.

This extensive use of collection at the source was not to continue long. By an amendment of 1917, those making payments of wages, salaries, interest, etc. (except dividends) were relieved of the obligation to deduct the tax at the source except in the case of payments to non-resident aliens. The receivers of such incomes were then required to pay normal tax. Having abandoned collection at the source on such income payments to most individuals, Congress by the Act of 1918 adopted "information at the source," requiring those making substantial income payments of these types to report the amount

[27] *Cf.*, Lent, *op.* cit., p. 720.

and recipient of the payment. This scheme was adopted to provide information against which individual returns could be checked. The substitution of information at the source for collection at the source (except in the case of corporate dividends) continued until 1942.

The use of the corporate income tax as the vehicle for collection of personal normal tax at the source began its disintegration with the Act of 1918. By that Act, dividends in the hands of individuals continued to be exempt from normal tax on the grounds that this tax was being collected from the corporation through the corporate income tax. However, the corporate tax may be considered an acceptable collecting instrument only when the corporate tax rate is identical with the personal normal tax rate. Lacking such identity, dividend incomes become subject to treatment different from that applied to other types of income. By the Act of 1918, the corporate tax rate was established at 12 per cent, while rough progression was introduced into the personal normal tax rate: 6 per cent on the first $4000 of taxable income; 12 per cent thereafter. Thus dividend income as a part of total taxable income not greater than $4000 was taxed (through the corporation) at 12 per cent, while other types in an equal total income were subject to a rate only half that severe. This departure from identity in corporate and personal rates began a series of modifications which eventually resulted in complete disappearance of the original intent to utilize the corporate tax as a vehicle for collection at the source. By the Act of 1936, corporate income was taxed at progressive rates ranging from 8 to 15 per cent without exemption of dividends distributed. (No such exemption has ever been allowed.) At the same time, dividends received were taxed in the hands of individuals under *both* the normal tax (4 per cent) and the surtax (4 to 75 per cent). Dividend incomes thus were required to pay the corporate tax as corporate income and later the personal taxes as personal income, while other types of income were taxed only in the hands of individuals. With this Act, therefore, we may say that the original system of collection of personal taxes at the source had completely disappeared. Corporation income was regarded as separate and distinct from individual income.

The reasons for collection at the source were originally purely administrative—to reduce the number of personal returns to a mini-

mum and to collect the major part of the tax through centralized responsibility for payment. At the same time, however, there was the advantage of partial collection at the time the income was realized, providing some current tax payments. This was beneficial both to government and to the taxpayer. However, when income tax burdens are not heavy, such advantages are relatively minor. The reasons for abandonment of collection at the source by 1936 are varied. In the first place, only under proportional rates was collection at the source simple and not administratively burdensome upon the payers of income. Thus, the scheme worked to reduce the number of returns only with respect to normal tax; those individuals with large incomes were still required to make a surtax return. Further, in the case of incomes other than from corporate dividends, the sources from which collection was made were many, and the advantages in fewer returns were not marked. Thus it is doubtful that the total administrative problem was greatly simplified by collection at the source. So far as taxation of dividends at the source is concerned, its abandonment can hardly be accounted for on grounds other than that corporate income appeared to be too easy a target for productive additional taxes, regardless of the discrimination involved.

In the early years of World War II, conditions required the introduction of collection at the source on a broad scale. Extension of the coverage of the income tax by radical reduction of personal exemptions brought, as we have seen in Table 27, almost five times as many returns in 1942 as had been required in 1939. This meant a great many returns on small incomes, with the danger of widespread evasion which could be curbed, if at all, only by unusual administrative diligence and at heavy financial cost. Thus, it was desirable to require payment by those who could have little motive for participating in evasion, since they were the payers and not the receivers of the income. In addition, the great extension of coverage brought under the tax for the first time many persons who were unsophisticated in the ways of income taxation. Their personal income records were typically quite inadequate, and many of them would have experienced great difficulty in correctly computing their taxes payable, even with the assistance of the tax return form. The administrative advantages of collection at the source were thus great.

But there were other advantages to collection at the source during the war period, both to taxpayers and to government. Prior to the Current Tax Payments Act (1943), the income tax return was made on March 15 on the income of the preceding calendar year. Payment could then be made in equal quarterly installments beginning with March 15. This meant that payment of the tax on the income of a given year was made during the following year. There were three great disadvantages in this during the war period. The first was that with broad coverage at relatively high rates, persons would be required to prepare for relatively large cash payments on quarterly tax dates. The tax on a given year's income was typically actually paid out of the following year's income, since few persons anticipated tax payments far enough ahead to prepare for them by current saving. It was thus apparent that much heavier taxation under the old scheme of delayed payment would impose serious hardship and possibly a high degree of tax delinquency. This would be particularly true in the case of fluctuating incomes. It was thus a service to the taxpayer to collect the tax in the manner least burdensome to him—in small amounts on paydays. The second great disadvantage was that to government, which would receive the revenue return from its heavier taxes only approximately a year after they were legislated. Under the system of current tax payments, revenue from the heavier levies became immediately available, and government had ample immediate use for them.

The third disadvantage in continued use of the old system of delayed tax payments lay in its inability to perform the necessary anti-inflation tax function during the war. The severe taxes were imposed partially to take spendable funds from the public and thus reduce the upward pressure upon prices. During a period of rapidly increasing national income and growing scarcities of consumable civilian goods, it was obviously essential to remove excess incomes from the market as they were earned.

Granted the benefits to all concerned in the institution of a scheme of current tax payments, the question may be raised why such a scheme implied collection at the source. The reasons are administrative. Weekly returns by income receivers who receive their incomes on a weekly basis would create a frightful burden

both upon the taxpayer and upon the Treasury. The simplest way to administer the plan was clearly to collect the tax at the source and to require the employer to furnish a statement of taxes withheld to the employee at the end of the income period.

The inauguration of a scheme of current tax collections at the source was not without its difficulties and disadvantages. The principal difficulties were (1) the difficulty involved in initiating current tax payments in any year while payments under the old delayed-payment scheme were being made on the previous year's income, (2) the difficulty in application of progressive rates to incomes from several sources, and (3) the difficulty involved in current collection arrangements applicable to those incomes received not in large amounts from few sources but in small amounts from many sources. We shall discuss these difficulties and the techniques adopted separately.

When the current tax payment scheme was inaugurated in 1943, most taxpayers had made but one or two quarterly installment payments on the tax on their 1942 incomes. Had all paid up their 1942 taxes in a lump sum on March 15, 1943, the current tax payment scheme could have been inaugurated later that year with little inconvenience. But most individuals planned to pay their 1942 tax quarterly out of 1943 income, and a doubling-up of 1942 and current 1943 taxes upon 1943 income would have been unbearable. There were thus only two possible solutions to the dilemma. One was to excuse all taxes on 1942 personal income except the first quarterly payment made March 15, 1943. The other was to postpone (actually drop) the current tax payment plan. Clearly the advantages of the plan were so great as to dictate adoption of the former solution, and all but the first quarterly installment on 1942 income were cancelled or, in cases where they had already been paid, returned. The Treasury thus lost a major part of the revenue on 1942 incomes, though its 1943 personal income tax receipts were greater than they would have been under the old system.

The application of progressive rates to withheld taxes (*i.e.*, taxes collected at the source) presented a problem never before faced. The reader will recall that earlier experience with collection at the

source had been related only to the proportional normal tax. But under a progressive tax, it became necessary for the withholder to apply the proper exemptions and deductions granted to the income receiver. The withholding tax was applied to salaries and wages; the wage earner was required to deposit with his employer a statement of his withholding (personal) exemptions. The amount of tax withheld for the pay period was determined by withholding tables which allowed for a round sum of deductions from gross income regarded as standard for income receivers in general. At the end of the year, therefore, the total of taxes withheld on wages or salaries for the year would approximate, but probably not exactly equal, the tax payable when calculated on an annual basis. For the deductions allowed the individual taxpayer might vary from the standard deductions provided for in the withholding table. Or the taxpayer might have received gross income for part of the year below the amount of personal exemption, and thus pay no tax, while for the remainder of the year his income might have been high enough to subject him to withholding tax. For the whole year, therefore, his income would have been such that if computed on an annual basis he would have paid less total tax than was actually withheld. The solution to this problem was to require a return covering his whole income for the year by the following March 15, calculating the tax payable on an annual basis. If the tax so computed was in excess of the total of tax withheld as shown on his withholding receipts, he paid the difference in a lump sum. If the total annual tax so computed was less than taxes withheld, he was entitled to a refund. The plan thus works to collect approximately the amount of the tax currently, and to settle the difference at the end of the year.

The third difficulty in current tax payments related to those incomes to which the withholding plan could not feasibly be applied. Such incomes included those in the form of interest, dividends, rents and royalties, and those created by the sale of goods and services to miscellaneous buyers in the market. To take an extreme example, it would be clearly impracticable to require the consumer to withhold the income tax on that income of the independent corner grocer created by the purchase of a dozen eggs. It would be impossible to

establish standard tables of withholding rates, even if administration of such a scheme were possible. And in the case of interest, dividend, and similar incomes, it is likely that fewer returns would result if income were reported and the tax paid by the income receiver than if withheld at the source. Further, since such incomes commonly come to the receiver from several sources, it is much simpler to apply progressive rates, personal exemptions, and deductions to such incomes in their totality. These types of income were therefore excluded from the withholding plan, and taxed in the hands of their receivers. How, then, could current tax payments upon such incomes be accomplished? The Act required all persons not included under the withholding plan who anticipated taxable income to file a declaration of their estimated income and estimated amount of tax on that income at the beginning of the year or portion thereof during which such income is anticipated.[28] The estimated tax is payable during the year in which it is earned, in equal quarterly installments.[29] Since the estimated tax is paid, over- or under-payments are adjusted by a final return for the year showing actual income and actual tax liability.

By the provisions of the Current Tax Payments Act, substantially all personal incomes are subject to tax during the year in which they are received.[30] The degree of currency depends somewhat upon the pay period. The withholding tax collects weekly from incomes received weekly, and monthly from incomes received monthly. Those not subject to withholding pay their tax quarterly through the

[28] This requirement applies to professional and business men, and persons receiving income in the form of interest, dividends, rents, and royalties, whose gross income from such sources is expected to exceed $100 for the year. Also included in this requirement because they are specifically exempt from the withholding tax on wages are farmers, domestics, and ministers of the gospel. Further, persons whose wages are subject to withholding are required to file a declaration if their wage income exceeds $5000 for the year plus surtax exemptions. This requirement results from the fact that they are liable to tax in excess of the amount withheld at the source.

[29] If the declaration is made during the second quarter of the year, the tax is payable in three equal installments; if made during the third quarter, in two installments, etc.

[30] In 1945, of individual income tax collections totaling $18,523 million approximately 55% represented taxes withheld, 45% not withheld.

calendar year. The advantages of such a plan, both to taxpayers and to government, are clearly evident. There are, however, certain costs connected with it which are worthy of note. It represents a radical departure from earlier tax procedures, and therefore requires a re-education of all taxpayers. Other things equal, such radical changing of the rules is undesirable, particularly in the case of income tax, which is by nature complex and difficult for the individual taxpayer to learn. It embodies an element of uncertainty, both to the taxpayer with respect to the amount of tax which he will finally pay, and to the Treasury.[31] Since the tendency of the withholding tax is toward overpayment, and refunds are not made until after the final annual return is made, the wage receiver is frequently in the position of a forced lender of small amounts to the Treasury.

Two types of administrative burden are imposed by current tax payments. The plan places great responsibility upon the employer, who is required to act as agent for the taxpayer. The record-keeping responsibilities, the accumulation of data on withholding exemptions of employees, and the issuing of withholding receipts, impose relatively heavy burdens. Accounting by the Treasury is likewise made more onerous with the great increase in number of individual collections and the increase in number of refunds.

With the increased costs involved in administration of a system of current tax payments and collection at the source, the balance is still heavily in favor of the system. It is doubtful that the severe taxes of the war and immediate post-war period could have been administered without some such plan. Experience with the withholding and current payment plan will obviously accustom taxpayers to it, and reduce the adjustment frictions involved. Simplification and perfection of techniques can reduce some of the present uncertainties and improve administration, thus reducing other costs involved. It is probable that there will never be a return to the old system of "year-late" payments, partly because of satisfaction with the present system and partly because of the difficulties involved in

[31] In fiscal 1946 the Treasury made refunds of personal income tax overpayments amounting to approximately $1,393 million. *Annual Report of the Secretary of the Treasury*, 1946, p. 204.

transition. In fact, it was largely the transition problem which held up introduction of the current tax payments system until wartime fiscal needs demanded it.

STATE PERSONAL INCOME TAXES

Nearly all states have "income taxes," though the majority of such taxes are imposed upon businesses of various types (principally corporations) and do not aim at the general stream of personal income. This group of state income taxes, since they are not levied upon personal incomes, will be ignored in this chapter. In addition, there are some states [32] which use a limited "personal income tax" as a substitute for property taxation of intangibles. When so employed the objective is not general use of the tax as a major revenue measure, but in effect it is a tax on intangible property measured by net income from intangible property. Such limited use clearly does not reflect acceptance of the principle of income taxation *per se*. In fact, Ohio's tax on the income from intangibles is regarded as but a section of the classified property tax, while the rate applied by the New Hampshire tax is the average rate on other property, which means that the rate changes with property tax rates.

We are concerned in this section with the taxes imposed by states upon general personal incomes of individuals. In 1946 there were twenty-nine states employing such taxes.[33] Of this group of states, seven first imposed their personal income taxes prior to 1920, five during the decade of the twenties, and seventeen during the decade of the thirties. Two states repealed their personal income taxes in 1943; in both cases the law had been enacted during the thirties.

In general, we may say that those states which enacted personal income tax laws prior to 1930 did so out of a desire to improve their tax systems in the direction of greater justice. Although in a few cases taxation of incomes began as an attempted new approach to the property taxation of intangibles, the major portion intended substitution of the income tax for the property tax at the state level. Motives for enactment of state income tax laws during the thirties

[32] New Hampshire, Ohio, and Tennessee.

[33] *Tax Systems,* 10th ed., Chicago, Commerce Clearing House, 1946.

were principally two: (1) To substitute new revenues for ailing property tax revenues during depression, and (2) to provide net new revenue to finance the state contribution required to qualify for federal grants-in-aid, principally for aid to the needy and specifically for the Old Age Assistance program. These latecomers were guided more by the pressures of expediency than from the conscious desire for long-range improvement in their tax systems.[34]

Of the thirty-one states with personal income taxes in 1937, more than half devoted substantially the whole of the revenues from this tax to the general funds of the state. This means that revenues were not shared with local governments, and were not earmarked for particular governmental purposes. In seven more states the revenues were used by state government, but dedicated to specific purposes. In three such cases the revenues were dedicated to public schools, in two others to relief of the needy, and in the last two they were divided between the general fund and school funds. In four states the revenues were divided between state and local governments, and in two others substantially the whole revenue was returned to local governments. In the six states last mentioned there is strong suggestion that the tax had its origin as a substitute for property taxation of intangibles. By and large, however, a survey of the personal income taxes now in force indicates an intent to reduce the tax burden upon property. As indicated above, in some cases this decision resulted from free choice on the long-run merits of the case, and in others resulted from the failure of property tax revenues to hold up in depression.

In general structure the state income taxes follow the pattern of the federal tax, except that the state tax is typically a single tax at gradually progressing rates, and not a combination of normal and surtax. The definition of gross income, the list of deductions, and the types of personal exemptions (though not the amounts), are similar

[34] Indeed, the special tax commission of 1933 in Connecticut recommended the emergency use of a sales tax to supply the revenue deficiency rather than a personal income tax, partially on the grounds that the former, being a bad tax, would more likely be repealed at termination of the emergency than would an income tax, whose desirable qualities might well establish it as a permanent institution.

to those of the federal tax. All but three[35] of the states employing general personal income taxes in 1946 taxed incomes at progressive rates. The rates themselves and the degree of progression are very mild compared with the federal income tax, though the income blocks to which particular rates apply are small, and the maximum rate is reached rather quickly. Most state rates begin at 1 per cent on the first $1000 of taxable income. The highest rate varies between 3 per cent (two states) and 15 per cent (two states) with greatest concentration around 5 per cent. A schedule of rates which is a composite of the more typical state schedules would begin at 1 per cent on the first $1000 of taxable income, and progress by one percentage point per thousand dollars of additional income until a maximum rate of 5 per cent is applied to all taxable income over $4000. The reader is warned, however, of the danger of attaching much significance to a "typical" schedule of rates when variations among the several states are considerable.

There is no mystery in the moderation shown by the states in the taxation of incomes. For the federal government is generally thought to have largely preempted the income tax field. When federal taxation of incomes began only four states were taxing incomes. And by 1930 only ten states had entered the field. Even at the present time, only

[35] These three states are Maryland, which imposed flat tax rates of 5% on the amount of income from investments and 2% on the remainder; Vermont, with a 4% rate on the income from intangibles and 2% on the remainder; and Massachusetts, where various rates are applied, but not progressively. The Massachusetts tax distinguishes five different types of income, and applies different rates to each. These types of income and their rates are:

1.	Annuities	1½%
2.	Income from business, trade, profession, or occupation	1½%
3.	Income from dealings in intangible property	3%
4.	Interest and dividend income	6%
5.	Income from real property acquired within one year of its sale to or condemnation by Massachusetts governments	50%

Here is a curiosity in the field of income taxation. It obviously includes an element of intangible property taxation in the high rate on interest and dividend income (#4 above), and clearly discriminates against the income from purchase and sale of securities (#3). It declares open warfare upon those who would profit by sales of land to Massachusetts governments, and appears to place little confidence in condemnation proceedings (#5). Here is a "classified income tax," possessing hardly a trace of the principle of ability to pay.

slightly more than half the states tax personal incomes. Under these circumstances it is not surprising that the federal government has gone its own way, taxing up to the limit of what it considers ability to pay, and ignoring the states. Some consolation is given in the permission to deduct state income taxes paid from gross income in determining taxable net income for federal tax purposes. But this does not share the field as would occur were state income taxes paid allowed as a credit against the federal *tax*.[36] The problem of sharing important revenue sources among governments at various levels is one which requires special study and is a problem much broader than that presented by duplication of personal income taxes alone. We shall have occasion to raise this problem in its broader aspects in a later chapter in connection with discussion of simplification of tax systems.

In this chapter we have centered our attention upon the descriptive aspects of personal income taxation. Little has been said about its theory. The broad outlines of income tax theory have been suggested at several points in our previous discussion. The taxation of incomes is clearly founded upon the principle of ability to pay. It proceeds upon the fact that all taxes are eventually paid from the stream of personal income, and that intended results in terms of the allocation of burdens are more likely to be accomplished by direct levy upon that eventual source of tax payments. The federal income tax, and most state income taxes (on individuals) employ progressive rates. This is in line with the principle of diminishing marginal sacrifice per dollar as the magnitude of income before taxes increases.

[36] If state income taxes are deductible from gross income, the relief from federal tax is only the state tax times the effective rate of federal tax. But if state taxes are credited against the federal tax (as they are partially in the case of death taxes), the relief from federal tax is the whole amount of the state tax. Suppose the state tax were $100, and the federal tax $400 computed without allowance in any way for state taxes. If the effective rate of federal taxation is 20%, then allowing deduction of state taxes from gross income for federal tax purposes would provide .20 × $100, or $20 relief from federal taxes, reducing federal taxes to $380 and making the total federal-state tax bill $480. If, however, state taxes paid were allowed as a credit against the federal tax, the federal tax would become $300, and the total federal-state tax bill would be $400. The latter arrangement, if unlimited, would almost certainly result in wider adoption of the personal income tax for state and local use.

Reasonable questions may arise concerning the desirability of a particular pattern of progression. So far as the states are concerned, however, their rate patterns can hardly be set up without regard for the federal tax, which is the major tax upon personal incomes. Thus, under present circumstances, state personal income tax rates tend to be established in terms of the ability of various incomes to pay after meeting their federal tax obligations.

But there is another reason why no consideration of the fine points of income tax theory has been undertaken in this chapter. These fine points of theory naturally arise in connection with the analysis of a number of particularly perplexing problems which have consistently beset federal tax practice in the United States. These problems we have reserved for treatment in the following chapters. In the process of their analysis we shall be required to investigate lines of cleavage between the theory and practice of income taxation, with a view to pointing out where improvements are in order.

RECOMMENDED READINGS

Lent, G. E., "Collection of the Personal Income Tax at the Source," *Journal of Political Economy*, October, 1942, pp. 719 ff.

Good description of use of this device in various countries, with analysis of its benefits and shortcomings.

Strayer, P. J., *The Taxation of Small Incomes*, N. Y., Ronald, 1939.

Chapters 1 ("Introduction"), 2 ("Revenue Aspects"), and 3 ("The Theory of the Personal Exemption") are especially recommended for collateral reading.

Ecker-R, P. L., "The Place of the State Income Tax in a Period of Expanding Federal Needs," *Proceedings, National Tax Association*, 1941, pp. 552–9.

One of the few discussions of the possible separate use of the personal income tax by federal and state governments.

For detail concerning the federal income tax law and its interpretation, one of the "Tax Courses" published by Prentice-Hall, Alexander, or Commerce Clearing House is practically essential, though it is possible to use the separately published Internal Revenue Bureau handbook: *Regulations Relating to the Income Tax*.

CHAPTER 17

THE NATURE OF NET INCOME FOR TAX PURPOSES

If a tax is to be imposed upon the "net income" of individuals, it is essential that net income be defined in such a manner as to accomplish the theoretical and practical objectives of the tax. More specifically, the definition must be precise in its inclusiveness; it must lend itself to consistent application to the various types of income; it must be logical or "correct," so that its application accomplishes justice among taxpayers; and it must define a magnitude which is possible of objective measurement.

It is common in economics to use the term "income" in the sense of a flow of satisfactions from capital or labor. This is *real* or *psychic* income, and doubtless for purposes of analyzing individual or general welfare represents income in its truest sense. But although basically income is satisfactions, use of the term in this sense for tax purposes presents difficulties of various orders. In the first place, it is useless in income taxation unless translated into monetary terms, for the tax base must be stated in dollars. But to take this step involves some loss of preciseness and accuracy in the relation between real income and money income. For if real income represents a flow of satisfactions, money income is the market values of the goods and services which provide those satisfactions. But what guarantee have we that the expenditure of ten dollars on goods by one person actually provides the same satisfaction to him as the expenditure of the same amount of money by another? By taking a dollar in taxes from

each of these persons, therefore, we cannot be certain that both have sacrificed exactly the same amount of satisfaction. Were there some dependable, objective measure of the amount of satisfaction yielded, this measure could be used as the clearly proper income tax base. Lacking such a measure, we are forced to accept the closest approximation to it—money income—fully recognizing that in taking a step away from real income we use a measure which is somewhat inaccurate.

The economic definition of income as real income raises problems in determining at what stage it is to be measured for tax purposes. We have already seen that it cannot be measured at the stage of realization—the creation of enjoyment. But if we use money income, shall we measure it at the stage of use for purposes of enjoyment? It is often assumed that since real income is psychic, money income must be measured at the point nearest to the realization of that psychic income. For this reason it is frequently presumed that the most accurate money measure of true income is the money value of the goods and services producing true income. But this is too frequently taken to mean the value of *consumers'* goods purchased. A little reflection will show, however, that satisfactions are not only consumer satisfactions. For real income (satisfaction) can be gained from saving for future enjoyment or from giving away a part of one's money receipts. In fact, saving and giving frequently occur because the satisfaction so derived is actually greater than the satisfaction which would otherwise have been realized by expenditure on consumption. Suppose that two individuals are in the same personal situation and receive salaries of the same size. If one spends more on consumption than does the other, it is by no means clear that the first derives more immediate satisfaction from his salary than does the second.

The point at which money income should be measured is that point at which it comes into the hand of the receiver—when it is available for disposal by him for consumption or saving. For the disposal of income must be presumed to follow the principle of maximizing satisfactions, whether that income is used for consumption or saving. It is over the question of savings that a considerable amount of disagreement has arisen. Are savings income? If real in-

come is narrowly defined as the enjoyment derived from consumption alone, savings are not income, and money income must be measured after division into the consumption and saving streams. On the other hand, if real income is broadly defined to include all satisfactions derived from the disposal of monetary receipts (after deductions of cost of production of those receipts), it is measured before disposal, and savings are income. The broader definition is preferred because it measures more accurately current ability to pay taxes, and the tax is levied at the time when ability to pay first exists. It relates ability to pay to what the receiver could get in satisfaction from the use of his net receipts, rather than what he did get from their disposal. And the definition preferred here places government's claim on a par with those of personal consumption and saving, rather than to place government in the position of residual claimant after disposition of income between consumption and saving has been determined upon by the individual.

The question whether savings should be considered income for tax purposes implies a possibility of discriminatory taxation of savings. Clearly, if that part of receipts which goes into savings is taxed before saving takes place and again when dis-saving (expenditure) occurs, discrimination results. The alternatives are to tax savings and exempt dis-savings, or *vice versa*. Such discrimination can obviously be avoided by definition of income in the tax law. Administratively, however, there is a clear preference for the former method (the method used by all income taxes at the present time). The latter method would require exemption of savings in the individual's tax return, and would require both detailed personal accounts of the disposition of income and great difficulty in checking the accuracy of returns. It would require also the inclusion in taxable income of such troublesome items as withdrawals from bank deposits and the proceeds of sales of securities and other personal capital assets. On practical grounds, therefore, there is distinct preference for defining income as personal net receipts from capital and labor prior to disposal. And on the grounds of theory there are elemental aspects of justice in taking the position that two persons with the same net receipts before disposal and in the same personal situation have equal capacity to pay taxes.

By defining income for tax purposes as net receipts before disposition for consumption and saving we impose taxation upon funds destined to become a part of the individual's capital. But to say that this *is* the taxation of capital is to deny that capital is created out of income, a denial obviously not square with the facts. For capital is a fund (of money or goods) created out of savings from income. But there is another aspect to the problem of distinction between capital and income. The income tax is not intended to be paid out of capital, and thus reduce the capital of an economy. It is essential, therefore, that the definition of income exclude that portion of receipts which are themselves capital. The simplest example is that of depreciation. The reader will recall that in our discussion of the nature of gross national product and net national income, we found it necessary to deduct from GNP that part of the stream of annual output which must be reserved for replacement of the capital which produced the output. Without such deduction, a part of "national income" would not be income from capital, but the capital itself. In the process of production specific items of capital are used up, some in a short period and others over a longer period. This using-up, or loss of service value, is depreciation. If replacement (or creation of reserves for replacement) does not take place out of gross output —or gross receipts—the fund of capital moves toward depletion. Net additions to the fund of capital will occur out of income, but existing capital is not maintained out of income.

To deal adequately with the necessity for distinction between capital and income in the flow of gross receipts (in the case of a national economy, a firm or an individual) the definition of income for tax purposes must lay down a general principle for exercising the distinction in practice. Mr. J. R. Hicks' "central criterion" of income will serve us well for tax purposes: ". . . a person's income is what he can consume during the week and still expect to be as well off at the end of the week as he was at the beginning." [1] Stated more generally, and in monetary terms, the income of an individual for any period of time is the money value of that part of his gross receipts (in money and in kind) which can be used up without im-

[1] *Value and Capital, Oxford,* 1939, p. 176. *Cf.,* also H. C. Simons' definition (b), *Personal Income Taxation,* Chicago, University of Chicago Press, 1938, p. 49.

pairing the prospects of equivalent gross receipts in any following similar period. Quite clearly, according to this definition, depreciation is not income, while net additions to capital occur from income. We shall see in later applications of the definition to questions of income tax policy that some such definition of net income is essential to the practice of justice among taxpayers.

We turn now to several problems of personal income taxation which have been and continue to be troublesome. Our specific interest will be in application of the definition of income to these problems, and in discussion of the possibilities of applying the definition in tax practice.

WHAT IS AN INDIVIDUAL INCOME?

The individual income tax need not utilize the individual person as the object of taxation. As a matter of fact, the rationale of the ability to pay principle would seem to utilize the notion of ability to pay not of the individual, but of the income-receiving and income-spending unit, generally composed of a group of individuals. Other things equal, a single person without dependents has greater capacity to pay taxes per dollar of income than does the head of a family. Thus, we may say that ideally it is the income of the spending unit and not that of the individual income receiver which should constitute the tax base. The federal income tax allows husband and wife to file either joint or separate returns in cases where both actually receive income. In the former case, income deductions and exemptions are combined, and the two incomes are treated as one. The circumstances in which a joint return would be normally preferred would be those in which the income of one was less than the personal exemption he would receive under a joint return. Under the 1945 Act personal exemption of $500 for each spouse was allowed only under a joint return. If one of the two had gross income of less than $500 for the year, the full exemption would be effective only under a joint return. Much more important, however, is the case where each spouse receives income of such size that if combined under a joint return the combined incomes would be subject to relatively high surtax rates.

The argument for joint returns under these circumstances runs

in terms of ability to pay. Suppose that the head (the sole income receiver) of family A receives $50,000 net income per year. He will probably file a joint return with his wife, but he gains only the $500 personal exemption of his wife by so doing. The marginal dollars of his income are subject to combined normal and surtax under the Act of 1945 at the rate of 72 per cent. Suppose, on the other hand, that in family B the husband receives $30,000 net income and the wife $20,000. The net income of family B is thus the same as that of family A, and the two family incomes would be taxed alike if family B made a joint return. But each spouse of family B is entitled to make a separate return. The marginal dollars of the husband's income will be taxed at a 62 per cent rate, while the marginal dollars of the wife's income will pay 53 per cent. The total tax on family A's income will be roughly $26,000, while the sum of the two taxes on family B's income, computed by the same method, is $19,900. Is there over $6000 difference in the abilities of these two families to pay income taxes? On the basis of the facts given, the two families have the same ability. At least, so far as family net income represents ability to pay, the two families are alike.

The arguments opposed to requirement of joint returns are principally non-economic. It is claimed that such a requirement would deal a blow to the institution of the American home; that it would discourage marriage and encourage immoral living. Possibly the institution of marriage needs encouragement through tax laws, or at least is not strong enough to overcome tax discouragements. Perhaps the independence of wives would be broken down by joint income tax returns. One may be excused the cynical observation that in those marginal cases where joint returns would destroy or prevent family life, the institution of the family is too anemic to be of great social value. This is one of those cases where the final decision respecting tax policy requires evaluation of economic and non-economic factors. It is apparent, however, that from the point of view of tax justice, the family income should represent the tax base, and joint rather than separate returns are indicated. If sociological considerations override those of tax justice, the former will logically prevail in establishment of policy.

It is frequently argued that to require joint returns would dis-

courage the taking of jobs by married women, with the consequence of labor shortage and a level of social income lower than that actually attainable. This is entirely possible, although those to whom the advantage is marked as between separate and joint returns are frequently those "career women" for whom income is not the only important consideration. By and large, it is hardly likely that the requirement of joint returns would seriously affect the size of the female labor force, since in most cases incomes are not high enough to make a great difference, whether they are taxed jointly or separately.

It is worth nothing that a requirement of joint returns would eliminate from the federal tax an injustice which now exists. In some states income to one spouse is legally regarded as being owned by both. The federal tax recognizes these "community property" laws and allows separate returns by husband and wife even though the income is actually earned by only one. Thus, residents of community property states may divide equally for tax purposes what in other states is regarded as income to a single person. Such division of income is wholly unreal, and discriminates against income receivers in states without community property laws. Since it is apparently impossible for the federal government to ignore state community property laws for federal tax purposes, the obviously simple escape from the injustices resulting would be to eliminate the privilege of separate returns by designating the spending unit as the taxed "person." [2]

[2] After the above paragraph was set into print the Congress included in the Revenue Act of 1948 a provision extending the joint return privilege formerly allowed only to residents of community property states to residents of all states. Although this provision eliminates the type of injustice inherent in the example of the third preceding paragraph, it would appear to make the existing system of personal exemptions quite illogical. For under the new arrangement, the non-income-earning wife in family A is granted the equivalent of a dependent's exemption of about $6000, while the family is allowed an exemption of $600 for each child. Further, under the universal application of income-splitting, which for tax purposes artificially makes two smaller incomes out of one larger income, the non-income-earning spouse is granted a personal exemption (in the form of tax savings) which increases in size with the size of the family's income. In the small income family the wife is allowed $600 exemption; in the large income family the wife may be allowed the equivalent of an exemption running into many thousands. This change in the Act of 1948 would appear to

THE INCOME PERIOD FOR TAX PURPOSES

The selection of the year as an arbitrary period during which incomes are presumed to be earned may cause serious practical injustice among personal income taxpayers. The period during which an income is earned quite obviously is frequently not identical with a calendar period. The federal law requires the return to be made on the basis of a twelve-month period, though this need not necessarily be the calendar year—it may be any twelve-month period corresponding with the taxpayers' system of maintaining accounts.[3] The important fact is, however, that the personal income tax operates upon a cash basis rather than on an accrual basis. Thus, an income is presumed to be earned when it is received. Although this is generally acceptable in the case of wages, salaries, interest, and dividends, it is frequently quite unacceptable with respect to profit and royalty incomes.

It is accepted as typical in the business community that the first few years of a new business involve relatively low net income, and in many cases losses. The costs of starting a business are partially those of building up good-will. Later income which results from good-will is not, therefore, allocable solely to the twelve-month period in which it is received. A doctor or a lawyer may well be required to live frugally while he builds up his clientele to the point where respectable net income is received. Of course, during the years when he makes no income he pays no tax. But this does not affect the size of the tax which he eventually pays out of then current income.

Suppose we take the case of a writer, who struggles along for a period of, say, three years during the writing of a novel. During the three-year period he either lives on his savings, on charity, or takes time out to write bits here and there from which he earns enough to finance himself while preparing his major work. Let us assume that he has no taxable income during the three-year period.

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call for a reexamination of the schedule of progressive tax rates, to bring them into line with ability to pay. In terms of family units, the income-splitting provision makes the rate schedule markedly less progressive.

[3] It is, however, difficult to change from one accounting period to another.

During the fourth year his novel is published, and is successful, bringing in royalties in that year which give him taxable net income of $75,000. He is taxed as if the whole amount were earned in the one (fourth) year, and his tax is approximately $46,000, computed at 1946 rates. Clearly it is reasonable to state that the income was actually earned over a period of four years, and if it were allocated in equal portions over the four years his total tax would have been about $26,000. We here face a basic problem in ability to pay. In the example just cited, the real ability to pay taxes in any one year from the novelist's income of $75,000 is considerably less than the ability to pay from an income of the same size which is consistently at that level from year to year, yet a tax which assumes income to be earned in the twelve-month period in which it is received does not take account of such differences in ability to pay.

It is not often feasible to take account of these differences by the calculation of income on an accrual basis, for two reasons. The first is that it is generally impossible accurately to forecast the amount of income eventually to be received. Our novelist, our doctor, or our lawyer cannot know with any degree of accuracy what his future income is to be, and cannot therefore accurately calculate a tax on accrued income during the years before cash income is received. The second objection to taxation of accrued income is that in the early years before cash income is received the taxpayer might be subject to great inconvenience in raising the necessary cash for tax payment.

The same objective may be accomplished by the operation of a "carry-back" system of computing the final tax. When the income is actually received, the tax liability can be computed on the basis of what it would have been had it been received in equal installments during the period while it was being earned. Such a system overcomes both difficulties mentioned in the paragraph next above. But there is as much reason for carrying forward as for carrying back. What we have said about those incomes which represent a long period of production can equally be said for incomes which fluctuate from year to year for any cause. Losses of one year must be met by income of another, and it is impossible to say that losses are always met out of prior income; they may be and are met from

future income. And even if net losses do not occur, the tendency under conditions of fluctuating income is to use income from high-income periods during low-income periods.

Aside from the justice aspect of carry-over and carry-back provisions, there is the incentive aspect. Any economic pioneering venture involves relatively high risk of loss, along with the possibility of unusually high gain. If, therefore, losses in periods of low income are to be ignored while gains in periods of high income are heavily taxed, the prizes to be gained from economic venturesomeness are made less attractive while loss possibilities are made no more so. A dynamic economy, with heavy dependence upon risk-taking investment, will do well to avoid unnecessary burdens upon risk-takers. The calculation of income for tax purposes over a period longer than a year would almost certainly encourage the type of new and more risky investment which is required in order to maintain a high level of national income. The question may be raised whether this is not a matter more properly applicable in the taxation of businesses than in the taxation of individuals. The answer is that it applies to both. The net income of unincorporated business ventures is taxed by the individual income tax, and corporations have no monopoly upon investment and the acceptance of business risks.

We have not so far been concerned with the mechanics of a carry-over provision in the tax. But it is a problem which must be met if the principle is to be adopted. Our analysis to this point would imply that incomes received should be spread for tax purposes over periods longer than a year. Ideally the longer period would embrace those years while the individual is intended to be self-supporting. Federal income tax laws formerly allowed children less than eighteen years of age to be considered dependents of their parents. It would be reasonable to assume that the age of eighteen years represents the age at which persons typically become economically independent. Thus, the carry-over of credits against later income need not begin before the age of eighteen is reached. It should then be applicable until death. For practical reasons, however, it would probably be wise to carry credits forward or backward for a limited period only, since the longer the period, the greater the complexity of calculation. Professor Simons recommends "a simple

averaging device" by which the carry-over and carry-back provisions would be applied.[4] If income were computed on the basis of a five-year moving average, with annual settlement of over- and under-payment, a great deal of progress could be made toward justice to the recipients of fluctuating income. Such an averaging device could not be "simple" in an absolute sense, but minor corner-cutting such as is characteristic of the "short form" at present would eliminate many complications which present themselves.[5]

Carry-over and/or carry-back provisions have frequently been employed, both in the United States and elsewhere. These have applied only to the carrying over of *losses* from year to year, and have related only to net *business* losses. Thus the averaging of income over a period of years—as suggested here—has not been attempted, and even the carry-over or carry-back of losses has not included losses in general. The carry-over of net business losses has been allowed under both the personal income tax (personal incomes from unincorporated business) and the corporation income taxes. Under the 1945 Act (and since 1942), net business losses could be carried back two years, and any losses not so carried back could be carried forward for a period of two years, though losses must be carried back before they are carried forward. There appears no good reason why this should not apply generally to any excess of deductions and exemptions over gross income to the individual. But even if this were done, it would relate only to net credits. In the interest of justice to those with highly variable incomes it appears reasonable to take the further step of averaging net income (including net losses) over a reasonable period of years.

The system of averaging incomes over a period of years is clearly to be recommended for reasons of justice among individual tax-

[4] Henry C. Simons, "Federal Tax Reform," in *International Postwar Problems*, Quarterly Review of the American Labor Conference on International Affairs, January, 1946, p. 27.

[5] Under any system it would be necessary for the taxpayer to retain records of taxable net income reported and tax paid. Other recommendations in this chapter, particularly with respect to treatment of capital gains and losses, would somewhat simplify the problem. It is believed that the precise arithmetic formulae by which the "simple averaging device" would be applied are beyond the scope of our discussion here. But it seems reasonable to believe that at some sacrifice of meticulous refinement, such a plan could be devised.

payers, eliminating the present discrimination against the receivers of widely fluctuating incomes. On the other hand, however, the system of averaging has disadvantages in terms of counter-cycle use of income taxes. Under boom conditions, where taxation is to be used to remove excess purchasing power tending toward price inflation, an averaging scheme would allow the high income receiver to carry back a portion of currently high income to bring former incomes to the average level for the period. If former losses are to be made up in this way, considerable amounts of currently received income may escape the high anti-inflation rates of the current year; if currently received income is to be allocated to earlier low-income years it will be subject to lower rates. In either case some part of the objective of anti-inflation taxation is unrealized, although by upward adjustment of rate schedules some part of these tax-freed funds could be recaptured.[6]

EXCLUSION OF CAPITAL ITEMS FROM INCOME

Recalling our definition of income as receipts which can be used up without impairing the prospect of equivalent receipts in any following period, we are forced to the conclusion that any part of receipts which if used up would impair this prospect must be capital or its equivalent in capitalized human earning power. Income tax laws have been quite meticulous in exempting capital itself from taxation. The same cannot be said concerning human assets. The individual who receives his income from personal service experiences with the passage of time the wasting of his principal asset—the ability to earn. The human being typically reaches at some age a cessation of earning power, due to age, in-

[6] Some detail in explanation of the averaging plan is in order to explain the above statements. Two kinds of variation are contemplated: variation from year to year in income and variation from time to time in tax rates. The averaging plan would eliminate variation in incomes (for tax purposes) by allocating a portion of income in a high-income year to years with lower income. This does *not* mean, however, that income so allocated would then be taxed at tax rates current in the year to which it is allocated. Thus when for counter-cycle reasons tax rates are increased, income realized in a high-rate year would be subject to those rates even though allocated to former years. The difference would be that the total tax bill is lowered by allocating income, which in the absence of averaging would reach a high surtax bracket, to lower brackets.

firmity, or death. In more technical terms, his service life is limited. While he is earning, therefore, the whole of his earnings (salaries or wages) cannot be considered as income, since a part of these earnings represents the gradual loss of the human equivalent of capital value in a machine or building. Capital which produces an interest income to its owner is presumed to be permanent, since the amount of that income is everywhere recognized to be determinable only after depreciation has been deducted for the purpose of replacing the particular capital instrument with another when its service life has ended. True income from personal service, by the same reasoning, is determinable only after deduction of an amount from current receipts adequate to replace the capitalized earning power of the human being at the end of his service life. It is, of course, unthinkable that this accumulated reserve should be used to purchase another human being, as is done with the depreciation reserve for capital instruments. The earning power of the individual must then be replaced by a fund of his savings, which savings perpetuate his earning power. It is no more reasonable to expect a machine to create its replacement fund than to expect a human being to do it. If it be pointed out that when the laborer dies he not only loses his earning power, but also his need for earning power, it can be argued with equal force that neither are the wants of the owner of capital more permanent than he himself.

It is clear, therefore, that wage receipts of $2000 per year are not as pure income as are interest receipts of the same amount. The latter is income after depreciation allowance, while the former is not. It follows, therefore, that the capacity to pay taxes from an annual wage income of $2000 is less than the capacity to pay taxes from an annual interest income of $2000.

The federal income tax has from time to time provided a special deduction for income from personal service. When utilized, it has been referred to by the law as the "earned income credit." The terminology has been unfortunate, and has tended to obscure the rationale of the deduction. For income from personal service has been called "earned income," while that from property or wealth has been termed the opprobrious opposite, "unearned income." The public has been (naturally) led to the feeling that the latter

is in some way less useful to society, and less justifiable economically.

This deduction first appeared in the 1924 Act, and was retained through successive acts until 1932 as a 25 per cent deduction from the normal tax. (It was not applicable to surtax.) It was completely repealed by the 1932 Act, but restored again in 1934 as a 10 per cent deduction from net income as computed without this deduction, and again only for normal tax purposes. Furthermore, all net income up to $3000, whether from personal service or from property, was considered earned, and all net income over $14000, from whatever source, was considered unearned. The actual tax advantage to earned income after 1934 was thus but 10 per cent of the normal tax rate times earned net income. This was a far more niggardly credit than the previous 25 per cent of normal tax. The earned income credit was repealed in 1943 and at the time of this writing (1947) has not been resurrected.

Several suggestions can be made in explanation of the consistent allowance of depreciation of capital in the tax laws, while the allowance of an earned income deduction has been far less consistent. The first explanation lies in the fact that the rationale of the earned income credit was never generally understood. By the receiver of "earned income" the credit was regarded as a windfall, probably due to legislative concern for the little fellow, while the receiver of "unearned income" typically regarded it as class discrimination based either upon the desire for reelection or as a pronouncement of social condemnation of property income. The misunderstanding was not reduced by Congressional wavering in application of the principle itself. Congressional confusion was added to public confusion in 1934 by failure to distinguish earned incomes from small incomes (all net income of $3000 or less was considered "earned") and unearned incomes from large incomes (all net income over $14,000 was considered "unearned"). The consistent application of the earned income credit to normal tax alone reflected indecision as to the nature of earned income.

The second suggestion in explaining the indecisive policy is the usual one of revenue need. Tax history is replete with demonstra-

tions that when the chips are down revenue conditions supersede those of justice. Repeal of the credit in 1932 and again in 1943 suggests that the special treatment of personal service incomes is largely a fair weather matter. In extenuation of the 1943 action, it may be pointed out that a particular tax objective in that year was the control of inflation in the consumer goods markets, and the receivers of "earned incomes" were then behaving badly from the anti-inflationary point of view.

Were not the two explanations given above so broad as to account by themselves for this curious and inconsistent Congressional behavior, a third might be put forth seriously. With a rather large proportion of the receivers of personal service incomes brought under the provisions of the Old Age and Survivors' Insurance scheme of the Social Security Act, the individual worker was no longer required to provide his own retirement income. Those workers covered by the Act thus could consider their wages (after social security tax deductions) as true income. It is not seriously suggested that this is a genuine explanation for Congressional action in removing the earned income credit. And if it were it would not be a logically acceptable excuse. For a great many receivers of "earned income" do not come under social security coverage. In the second place, such coverage does not provide treatment equivalent to that provided in depreciation deductions, for the coverage does not make labor incomes permanent, but only for life subsequent to attainment of legal retirement age. Finally, social security taxes taken out of his pay are not deductible for income tax purposes from the employee's income, indicating conclusively that social security could not have been seriously considered by Congress as a substitute for the earned income credit.

CAPITAL GAINS AND LOSSES

Nature of Capital Gains and Losses One of the most difficult and unsettled problems of federal income taxation has been the treatment of capital gains and losses. By a capital gain we mean a financial gain resulting from the sale of a capital asset at a higher price than was paid for it. The gain arises out of an appreciation

of capital value, and creates in the hands of the receiver a clear capacity to pay taxes.[7] We must recognize, however, two administratively different types of gains arising from the sale of assets. The first is typified by the usual gains from mercantile enterprises, where goods are sold for prices higher than were paid for them. Such gains are clearly business income, and should be treated like other income for tax purposes. The second type of capital gain is of the irregular or unusual sort, occurring outside the normal course of earning one's income. It is this latter type with which we are dealing when we speak of the treatment of "capital gains and losses" in income taxation. It is perhaps best typified by the physician whose regular income arises from the practice of his profession but who may pick up gains now and then through the purchase and sale of bonds and stocks.

The federal income tax law describes capital gains and losses to the individual as the gains or losses from sale of certain types of property. These types of property include assets held by the taxpayer other than (1) "stock in trade" held primarily for sale to customers in the ordinary course of his business, (2) real property used in trade or business, or (3) the securities of governments in the United States.[8] The intent is clearly to specify for treatment under this head gains and losses on sales of property outside the area of one's normal trade or occupation. Thus, a grocer would have his gain from the purchase and sale of groceries taxed in the same manner as are salaries and wages; while if he were to realize gain from the sale of his residence, this gain would be regarded for tax purposes as a "capital gain," and given somewhat special treatment. A capital gain or loss can be "realized" only through actual sale or exchange [9]—

[7] A *net* appreciation of capital value is meant. Property may increase in value because of the investment of capital in its improvement. The capital gain would then be the appreciation in capital value less any direct cost incurred in improvements.

[8] *Internal Revenue Code,* Sec. 117 (a) (1).

[9] With the following exceptions (as of 1946): (1) worthless stocks or bonds, which create realized loss though not sold, (2) retired bonds, where comparison of matured value with price originally paid may establish capital gain or loss, and (3) dividends declared in liquidation of a corporation, constituting distribution of their equities among the owners. (*Internal Revenue Code,* Sec. 23 (g) (2), (k) (2); Sec. 117 (f); Sec. 115 (c).)

paper gains are not recognized. In practice, the principal capital assets subject to this special tax treatment are investment securities and real estate.

We are thus treating here a class of taxable incomes which have certain striking peculiarities, among which are: (1) their basically fluctuating character, (2) their susceptibility to manipulation in order to gain tax advantage, and (3) their special incidence among larger income receivers. Being outside the normal course of income-earning activity, capital gains or losses are realized infrequently by the average person, though it should be pointed out that they are typically realized more frequently by the "speculator" than by the "investor." Capital gains and losses are further heavily dependent upon the course of prices and the business cycle. The experience of the Treasury with respect to revenue collections from capital gains and losses shows their widely fluctuating character. From 1926 to 1940, the average yearly revenue from capital gains was about $120 million. However, in 1928, the highest year, the revenue was $576 million, while in the years 1930, 1931, and 1932, the Treasury actually lost revenue on account of an excess of total capital losses, which losses were deducted from other income.[10]

The distribution of capital gains by income classes shows clearly the concentration of such gains in the higher income groups. In 1938, for example, the following estimates were made by the Treasury: [11]

NET INCOME CLASS	% OF TOTAL NET INCOME RECEIVED	% TOTAL SHORT-TERM CAPITAL GAINS	% TOTAL LONG-TERM CAPITAL GAINS
Under $5000	64.0	33.0	13.0
5000 and over	36.0	67.0	87.0

It will be noted that although two-thirds of total short-term capital gains and seven-eighths of long-term capital gains accrued to the class with *net* income of $5000 and over, even a net income slightly under $5000 must be considered large in terms of the distribution of na-

[10] See testimony of Randolph Paul before House Committee on Ways and Means, concerning the *Revenue Revision of 1942*, Vol. 1, p. 255.

[11] From testimony of Randolph Paul, *op. cit.*, Vol. 2, p. 1638. The distinction between long- and short-term capital gains will be discussed later in this chapter.

tional income. It is probable that in the class under $5000, most of the capital gains were realized by individuals with net incomes only slightly below that figure. Such incomes would not generally be considered small.

Survey of Federal Treatment of Capital Gains and Losses[12] As in the case of other troublesome problems of income taxation, the treatment of capital gains and losses by the federal government has been changeable and lacking in consistency with regard to any central principle. The first modern federal income tax (1913) included net capital gains with other income and taxed the whole at uniform normal and surtax rates. *Net* capital losses (*i.e.*, capital losses in excess of capital gains) were not recognized; capital losses could be deducted from capital gains, but no excess could be deducted from other income. At the beginning, therefore, gains were assumed to be the equivalent dollar for dollar to other income so far as taxable capacity was concerned, although Congress was not ready to go the whole way in consideration of all capital losses as negative income—they were only negative capital gains.

In the 1918 law, capital losses were deductible in full from both capital gains and other income. We find, therefore, adoption of the consistent principle that capital gains and losses are full-fledged (positive and negative) incomes. In 1921 a new treatment appeared. Capital net gain was given the choice between paying a tax of 12½ per cent or of paying regular normal and surtax rates as a part of total net income, though if the former alternative were followed the total tax paid could not be less than 12½ per cent of total net income including capital gains. Only gains from the sale of property held over two years were, however, entitled to the alternative computation. The implication of this action is that capital gains are not on all fours with other income. If they were a part of high incomes, the alternative method provided some relief. Under the 1921 law, however, capital losses were fully deductible from capital gains and from other income.

The 1924 law reinstated limitations upon the use of capital net

[12] No attempt is made to catalogue all changes in treatment of capital gains and losses. Only those provisions significant to discussion of the nature of the problem are included.

losses for reduction of taxable income. From the tax as computed without regard to capital loss, a deduction of 12½ per cent of capital net loss was allowed, provided such deduction did not reduce the total tax by more than 12½ per cent. Capital net losses in any year in excess of the amount used in that year to reduce the tax were permitted to be carried over for a period of two years. Curiously enough, such losses carried over were deductible from "ordinary net income" in subsequent years, and not from subsequently realized net gains.

The developments in the early nineteen-thirties were essentially continuations of the trend toward limiting capital losses for tax purposes. The significant change was the distinction between short-term and long-term gains and losses. The latter were given more favorable treatment than the former, for reasons worth brief discussion. The first reason was that short-term gains are essentially speculative in character, and thus (for non-tax reasons) entitled to less consideration. The mood of the times, largely the result of the speculative excesses of the late nineteen-twenties, was distinctly unsympathetic to speculation. The second reason has far more solid foundation in tax theory: long-term gains and losses may be considered as accruing over a period generally longer than one year, and to tax them as if they represented income for the year in which they were realized would involve application of undesirably heavy tax rates in many cases. The third reason for more harsh treatment of short-term gains and losses lay in the realization that such gains and losses were peculiarly susceptible to manipulation for purposes of controlling the amount of income tax payable. Short-term losses could easily be arranged so as to cancel capital gains and to reduce other net income for tax purposes. This was done particularly by those in the higher income groups, and thus partially negated the high surtax rates of the period. It was further evident that in some cases sales to establish losses were not *bona fide* as contemplated by the Congress, but represented end-of-year exchanges within the family or among friends for the purpose of establishing losses. In some instances these exchanges were found to be only temporary, the securities finding their way back into the hands of the original owners soon after tax date.

By the 1932 law, short-term losses were deductible only from

short-term gains, eliminating the possibility of any reduction in other income through net short-term losses. The carry-over of net short-term losses to subsequent years was terminated in 1933. In 1934 gains and losses were classified by an elaborate schedule, the longest-term gains being those on securities held over ten years, and the shortest-term less than one year. The former were entered at 30 per cent of their amount, the latter at 100 per cent, with several gradations between. Capital losses were allowed to the extent of capital gains plus $2000, but the carry-over of losses to subsequent years was disallowed. Further, the flat 12½ per cent rate on gains was eliminated, which made them again subject to regular tax rates. Succeeding laws have not fundamentally changed this method of treatment, though percentages, holding periods, and the extent of net loss allowances have varied. Under the law effective in 1946, gains or losses on assets held for six months or less are considered short-term, and are entered as income at 100 per cent. All others are long-term gains or losses, and are entered at 50 per cent. Net capital gains are taxed at rates applicable to other income,[13] and capital losses are allowed in any year to the extent of capital gains plus $1000. However, unused capital losses may be carried forward for a period of five years.

In the welter of changes and confusions attending the treatment of capital gains and losses, certain general patterns stand out. In summary, we note a general tendency to tax capital gains as income, though for a major part of the modern period the taxpayer has been offered an optional flat-rate tax on such gains. The implication is that although capital gains are income, they do not possess precisely the same capacity to pay taxes as does other income—at least in the higher brackets. The treatment of capital losses is even less consistent. They have always been given some consideration as negative

[13] An alternative tax computation is allowed when net long-term gains exceed net short-term losses. A partial tax on other income is computed, and to this partial tax is added 50% of the excess of the long-term gains. The taxpayer may choose the smaller of the amounts computed in the ordinary manner and by the alternative method. It is notable that by the alternative method the excess of long-term gains over short-term losses is taxed at an effective rate of 25%, since but 50% of actual long-term gains is taken into account and the rate applied is 50%.

gains, but typically they have been deductible from other income only in limited amounts. Only between 1918 and 1924 were they fully deductible; before that period they were not deductible at all and since that period they have been deductible generally only in nominal amounts. Finally, the distinction between long- and short-term gains and losses has grown up in recent years, with comparatively favorable treatment granted the former.

Are Capital Gains Income? By strict economic definition of income as a flow from a fund of capital, capital gains and losses do not qualify as income. They are increments or decrements to capital value, a capital gain reflecting either an anticipated increase in future income from the property or a lower rate of capitalization of the same anticipated income. Nor do capital gains meet the requirements of our definition of income as the money value of that part of gross receipts which can be used up without impairing the prospect of equivalent gross receipts in any subsequent similar period, when they are viewed as gains of a particular year. Such fluctuating gains (and losses) do, however, fit this definition if by the process of averaging we spread them over a longer period.

If we view capital gains from the point of view of disposable receipts, we find that they clearly represent ability to pay taxes at the time of their realization. They represent liquid funds which can be spent or saved (or taxed) without disturbing the prospect of continued income from capital at the same level as before. That they are irregular must be admitted, but that their utilization worsens the capacity to receive future income must be denied. To the professional speculator, capital gains are clearly his only income; to argue that he receives not income but capital premiums and therefore should not be taxed is to make a distinction where no significant difference exists. Thus we may see that the annual receipts of the salaried worker are not different—for tax purposes—from those of a merchant whose income arises from appreciation in value of the goods he sells, except that the former may be somewhat more regular. The nature of the merchant's income is like that of the professional speculator. And is the income of the professional speculator different from that which the amateur and part-time speculator receives for doing the same thing? It is impossible to find any differences in the

taxable capacities of the following three men: A, who receives $10,000 salary per year; B, who receives $5000 per year from legal practice and $5000 per year in capital gains from the sale of assets; and C, who receives $10,000 per year solely from capital gains. (We assume by saying "per year" that an averaging process has ironed out year-to-year fluctuations in all incomes.) We conclude, therefore, that for purposes of equity all should be treated alike by the income tax, and we are driven to this conclusion in full view of the storms of controversy surrounding the issue.

Common Objections to Capital Gains Taxation The objections to capital gains taxation may be segregated into two classes: those which object to any inclusion of capital gains and losses in income taxation, and those which object to particular methods of treatment. The objection to any income taxation of capital gains and losses centers around the question whether they are truly items of income. This is not an idle question of theory; it has important practical applications in the realm of discriminatory double taxation. For example, is it logical to tax as income an appreciation in capital value which is the result of capitalizing anticipated increases in income from capital, and then later to tax this increased income when realized? The answer would be in the negative, provided *paper gains* were taxed as income. But since gains must be realized through sale of the asset before they are taxable, the capital gain accrues to one person (and is like his other income) while the higher anticipated interest, dividend, or rental accrues to another. It would be difficult to label this as discrimination or double taxation.[14]

[14] A special situation which causes discriminatory double taxation through taxation of capital gains is that in which corporate income is reinvested by the corporation. The corporate earnings are reinvested after having paid corporate income taxes. However, the very reinvestment is likely to increase the market value of securities outstanding; if such securities are subsequently sold, capital gains are likely to result. The income and the appreciation of capital created by its reinvestment are both taxed (finally) against the same person.

This kind of discrimination, however, occurs even when corporate earnings are distributed to stockholders. Personal income which arises through corporate activity is thus taxed twice—once as corporate income and again as personal income. The fact of such double taxation is due not to the taxation of capital gains but to the taxation of income to the corporation as if it were a separate stream of income.

There are many different objections to specific methods of taxing capital gains. Heading the list of such objections is that which opposes the taxation of capital gains in full while capital losses are not given full and equal treatment as deductions. There has never been a disposition to disallow capital losses as deductions from capital gains. But government has more recently shown quite consistent determination to stand firm against a significant amount of deduction of net capital losses from other income. This practice can be explained—though not justified—on two counts. When capital losses are fully deductible, the large investor can frequently create capital losses by proper selection of securities for sale with the purpose of avoiding high taxes in the upper brackets. The effectiveness of the high rates in bringing in large revenues from other income is in this manner largely vitiated. And whether or not losses are intentionally realized for tax purposes, the downward swing of the business cycle will inevitably create large capital losses, as well as a lower level of "ordinary income." The downswing thus normally brings a severe reduction in income tax revenues, and this reduction is intensified through capital losses, when losses are deductible from other income. The reader will note that the revenue objection to full deductibility of losses does not take account of the desirability of severe reduction of tax burdens during the downswing of the cycle. But we are here endeavoring to explain why the Treasury and the Congress have favored limited deductibility, and experience so far has shown too great concern by these agencies for high levels of revenue during such periods.

The second explanation of the rather consistent limitation of capital losses to the approximate extent of capital gains runs in terms of the morale effects upon taxpayers. Those who can best afford to pay taxes are precisely those who—because they own assets upon which capital losses can be realized for tax purposes—can effectively escape heavy taxation when full deductibility is allowed.[15] When in 1933 it was demonstrated that many persons whose names were identified with great wealth had been paying little or no income tax by taking advantage of capital losses, the man in the street roundly

[15] This problem is clearly outlined in H. M. Groves' article, "Yachts Without Income," in *The New Republic,* July 19, 1933.

condemned them for doing something which the tax law gave (most of) them every right to do. The Treasury and the Congress will naturally wish to avoid such animosities, and the most easily available instrument is that of limiting the allowances for capital losses. It may be observed that had government followed a low-tax policy in the middle thirties rather than a high-tax policy, lower income earners would have been largely tax-exempt, and the animosities would almost certainly have been far less intense.

It is presumed to be evident from our earlier discussion that capital net losses should be fully deductible from other income, not in the year in which the losses are realized, but over a period of years through the averaging process. No other procedure is logical in terms of equity. But there is another reason for advocating such action. The major part of capital gains and losses result from transactions in corporate securities, principally common stocks. These securities represent largely venture capital, and arise out of investment. As we have seen in earlier chapters, the level of investment is an important key to the level of national income. But if capital gains are to be heavily taxed while capital losses are unequally treated, a discouragement of venture capital investment may exist.[16] Indeed, this aspect of the problem is considered so important in some quarters that equal treatment of losses with gains is regarded as only a beginning. In this view, capital losses should be given more than equal treatment; they should be fully deductible, while capital gains should be segregated from other income and subjected to low and proportional rates. This view appears to assume too much frailty in the spirit of venture capital, especially if counter-cycle tax policy were earnestly pursued. For when a deficiency of investment occurs it is presumed that tax rates will fall, accomplishing some real relief to capital gains along with other income.

The belief is widespread that taxation of capital gains at the usual income tax rates introduces a friction into the capital markets which creates instability and therefore makes more difficult the per-

[16] It is, of course, difficult to assess the extent of this discouragement in actual practice. But it is so frequently iterated by representatives of the financial community that a presumption of its reality must be accepted, even though it contains some characteristics of special pleading. *Cf.* H. M. Groves, *Postwar Taxation and Economic Progress,* New York, McGraw-Hill, 1946, p. 222.

formance of their proper functions of channeling savings into investment. The argument takes several forms. It is sometimes claimed that when the market values of securities are low, selling is encouraged in order to establish capital losses while buying is discouraged by the prospect of future capital gains. The market thus moves lower. And when market values are high the tax encourages buying to make possible the later establishment of capital losses and discourages selling which would establish realized capital gains. The market thus moves higher. (Some qualification appears in order, for if the tax actually prevents the judicious investor from buying at low prices, selling at high prices will not establish great capital gains, while if the tax discourages selling at high prices so that purchases at that level cannot be made, only limited capital losses can be established by later selling at low prices.) This argument is generally used to favor low-rate taxation of capital gains, since experience tends to show no hope for outright exemption. There is a presumption favoring the conclusion that taxation of gains at high income tax rates does have *some* influence on the actions of buyers and sellers in the market. However, the tax is but one of many factors influencing decisions to buy and sell, and the evidence seems to point to the fact that it is by no means an overpowering factor. Between 1926 and 1940 there were several changes in the method of taxing capital gains and losses. The estimates of net revenues from taxation of gains and losses varied with the stock price index in all but four of these years: 1929, 1932, 1937, and 1939. The only one of these four years in which a change was made in treatment of gains and losses was 1932, and in that year more favorable treatment was given. This more favorable treatment, combined with a further fall in stock prices, would be expected to increase the magnitude of capital losses realized for tax purposes; as a matter of fact capital net losses declined in that year. Between 1926 and 1931 the treatment of capital gains and losses was unchanged, and yet revenue from net gains varied between $576 million in 1928 to–$89 million in 1931.[17] The facts stated here do not deny that tax treatment had something to do with the volume of purchases and sales, but they appear to deny that

[17] Facts taken from testimony of Randolph Paul, *Hearings, Revenue Revision of 1942,* Ways and Means Committee, Vol. 2, p. 1630.

tax treatment was anything like *the* controlling factor. The activity of the market is far less dependent upon the tax than upon the influence of prices.

On balance it appears that the arguments for special treatment of capital gains and losses are by no means entirely convincing. Such treatment would lighten the tax burden on gains and discriminate against other types of income which have no greater ability to pay. It has not been demonstrated that equal treatment would seriously discourage investment, particularly if capital losses were fully deductible. This latter would, however, represent a major change in tax treatment which is wholly desirable on grounds of equity, and would remove the major current discouragement to invest in more venturesome enterprises. The second major change indicated is that of averaging incomes over a period of time. With respect to capital gains and losses, such averaging would eliminate the need for segregation of long- and short-term gains and losses, and treat all as if they were of the long-term variety. This is entirely consistent with the proposal to measure the ability to pay of fluctuating incomes as if they were constant. Ideally, of course, income should be taxed over the period of its accrual. Short-term gains accruing over a period of less than a year should, in strict logic, be taxed as income of that year, while those accruing over a period longer than a year should be considered for tax purposes as having been realized over the longer period, and the proper portion should be taxed as income realized in each year of the accrual period. However, the administrative difficulty involved in calculating the true income period for each dollar of gain realized is so great as to make this ideal unattainable. We therefore propose treatment of all gains by the income-averaging process, which is a practicable procedure favoring short-term gains more than long-term gains. Present practice is to treat short-term gains properly but to favor long-term gains.[18] The over-all necessity

[18] The present practice of taking into account only 50% of long-term gains for tax purposes, and taxing that portion as earned in the year realized, entirely exempts one-half of long-term gains from any taxation, and treats the taxed half as if that amount actually was earned in the tax year. The untaxed half is obviously given favorable treatment; the taxed half is treated properly only when it happens that one-half of the long-term gain is actually earned in the year taxed. This is clearly a rough-and-ready treatment.

is to treat fluctuating whole incomes (including gains and losses) as if they were constant. This the averaging scheme would accomplish.

In this chapter we have discussed at some length a group of problems arising out of the necessity for adjusting some tax practices to proper definition of income. There are, however, additional problems which call for analysis. Special emphasis is placed upon income tax problems for the reason that future tax systems will be built largely upon the personal income tax if they are to be constructed upon the accepted basic principles of taxation. We turn in the next chapter to some of the important questions of the proper relation of personal to corporate income taxes.

RECOMMENDED READINGS

Simons, H. C., *Personal Income Taxation*, Chicago, University of Chicago, 1938.

A bright, readable analysis. Chapters 2, 7, 10, and Supplementary Note are especially applicable to the material of this chapter.

Groves, H. M., *Postwar Taxation and Economic Progress*, N. Y., McGraw-Hill, 1946, Chapters 7 and 8.

Discussion of policy with respect to income tax base, rates, yield, and the possible treatment of tax-exempt securities, capital gains and losses, and irregular incomes. Substantially the same reading is to be found in Groves, *Production, Jobs, and Taxes*, N. Y., McGraw-Hill, 1944, Chapters 7, 8, 9.

Colm, G., and Lehmann, F., *Economic Consequences of Recent American Tax Policy*, Supplement I to *Social Research*, 1938, Chapter 4.

A short discussion of the cyclical implications of tax policy in 1937. Attention is given to the Undistributed Profits Tax and to the taxation of capital gains.

CHAPTER 18

TAXATION OF PERSONAL INCOME FROM BUSINESS CORPORATIONS

It cannot be too frequently repeated that (1) all taxes are finally paid out of the stream of personal income, no matter where their original impact is felt, and (2) we cannot judge the acceptability of a given tax measure unless we know with reasonable accuracy where its incidence lies. On both counts the personal income tax recommends itself above all other measures. It makes personal income (the final source of tax payments) the immediate base of the tax and thus avoids the vagaries of indirect approach to the source. The incidence is essentially clear, for little shifting occurs. In consequence, it is evident that both simplification and improvement of the tax system require greater emphasis upon personal income taxes and less emphasis upon other tax forms. This being the case, the reason for particular concern for proper methods of personal income taxation is evident. In Chapter 17 we considered some details of conformity in tax practice to the proper definition of income. In this chapter we shall be concerned with the relation of personal to corporate income taxation.

RELATION OF PERSONAL TO CORPORATE INCOME TAXATION

Since 1913 the federal government has maintained both a tax on the net income of individuals and a tax on the net income of corporations. "The federal income tax" is usually considered to combine these taxes, and Congressional practice has typically bracketed the two measures in such a way as to imply that they are

not two taxes, but one. We are interested in determining whether in practice the two taxes have been integrated so as to operate as a single tax measure, and whether in theory they should be so integrated.

The Extent of Integration in Practice We have seen (Chapter 16, page 384) that by the 1913 Act the corporate net income tax of 1 per cent provided for collection at the source of the 1 per cent normal tax on dividends received by individuals. Dividends received by individuals were exempt from normal tax but subject to surtax. Such an arrangement can work quite satisfactorily so long as the rates are identical and not progressive. Obviously a progressive schedule of rates on the corporation's net income cannot be related to individual ability to pay. Under progressive schedules, two corporations with net income of identical size will pay at the same effective tax rates, though the one may be closely held by a few owners with large incomes while the other is widely held by many owners with small incomes. If progressive taxation at the source, based upon net income of the corporation and not the individual, is employed, the final effect is to brush aside all consideration of ability to pay as a personal fact. When identical proportional rates are applied to corporate and personal incomes, the area of injustice is greatly reduced, though not eliminated. For even the 1913 Act, by taxing corporate income at 1 per cent, reduced by that amount the dividend incomes of small income-receivers whose personal exemption should have made their whole incomes free of tax.[1] Even granting an exempt minimum to the corporation does not serve the same purpose as an exempt minimum to individuals.

In spite of the inequity to low-income stockholders in collection of taxes on dividends at the source through the corporation tax, Congress began in 1918 a series of further departures from equitable treatment of dividend incomes. By introducing in that year gradu-

[1] The personal exemption for a single person under the 1913 Act was $3000, and the 1% normal tax applied only to income above that exempt minimum. A stockholder in, say, the $2500 income class, would find that the corporation had paid a tax of 1% on his share of the corporate earnings, though if his share had been subject to personal rather than corporate taxation he would have paid no tax at all.

ated personal normal tax rates (6 per cent to $4000; 12 per cent above) while the corporate tax rate was 12 per cent on its income, the inequity to small income receivers was not only continued for those who would pay no normal tax whatever, but extended to those whose taxable income was not greater than $4000. Thus, by collection at the source, a person whose taxable income was not over $4000 would have paid 6 per cent on individual income, while the corporation was paying the tax on his dividends for him at the rate of 12 per cent. The purpose of the corporation normal tax on dividends is badly served when the rate schedules cease to be identical.

The period 1918–36 represents persistent refusal to treat individuals and corporations alike with respect to rates. After 1918 corporate rates continued higher than normal tax rates on individual income. In 1935 a system of graduated (progressive) corporate rates was introduced, though the normal tax to individuals had (in 1924) settled back to a flat rate of 4 per cent. Though until 1936 individuals were exempt from normal taxes on dividend income on the grounds that these taxes had been collected through the corporate tax on its net income, the rates in 1935 were as follows:

INDIVIDUAL NORMAL TAX RATE	CORPORATE TAX RATES
4%	Corp. net income up to $2000—exempt
	$2000–$15,000—13%
	$15,000–$40,000—14%
	Over $40,000—15%

The dividend receiver whose income was small could derive little comfort from exemption of his dividends from normal taxation at 4 per cent on the grounds that the corporation had already paid his tax for him at a rate of 14 per cent.

In 1936 Congress abandoned completely the use of the corporate tax as an instrument for collection at the source. This year marks complete acceptance of the fallacy that the stream of corporate income is distinct from the stream of individual income. The whole question of the relation between individual and corporate income taxes was reviewed at length in connection with the 1936 Act. The opportunity was presented to return to basic principles, but instead, a long backward step was taken. In the hearings and debates over

the bill an unusual amount of heat was generated, and the action taken shows little conformity to the logic of the issue.

The President recommended to Congress the following action, with the dual objective of introducing greater equity into the system and closing an important tax loophole of long standing: [2]

1. Repeal of the existing corporate income tax.
2. Taxation of dividends in the hands of individuals at rates identical with those applied to other income.
3. Imposition of a new corporate tax on net income not distributed as dividends, at rates comparable as nearly as possible with personal rates applicable if such income had been distributed.

The first recommendation was based upon the principle that corporate income is not distinct from the income of the individuals who own the corporation. It was also made in recognition of the fact that the scheme of collection at the source (even when corporate and personal normal rates were identical) worked injustice upon the small dividend receiver. The second recommendation would complete the changeover from collection at the source to collection from the individual at rates which are presumably gauged to individual ability to pay. The third recommendation was made in view of the generally recognized fact that in many cases corporate earnings were withheld from distribution in order to avoid personal taxes. This was obviously done in the interest of the large income receiver and constituted an important loophole for the avoidance of income taxes. All income tax laws, beginning in 1913, had provided penalties for "fraudulent" or "unreasonable" withholding of corporate income from distribution. The loophole had always been recognized, but it had been impossible in practice to close it. It was therefore suggested by the President that undistributed corporate income be taxed to the corporation as if it had been distributed, at rates as nearly as possible in line with existing individual normal and surtax rates. The rates would, of course, show only a rough-and-ready equality with personal rates, since persons in many tax brackets and there-

[2] *Cf.*, Presidential Message of March 3, 1946. *Senate Report No. 2156,* 74th Congress, 2nd Sess., pp. 2–3.

fore subject to different tax rates would be entitled to undistributed income.

Though clearly a logical solution to the problem of the proper relation of personal to corporate income taxes,[3] the President's recommendations raised a storm of protest both in and out of Congress. The discussion quite consistently emphasized political points of view, and the real points at issue were all but lost.[4] The Act as passed could hardly have satisfied anyone, for it met neither the requirements of a logical system nor the desires of taxpayers.

By way of recapitulation and demonstration of the issues, let us outline the original role of the corporate tax, the proposal of 1936, and the law as passed in that year. We are interested, of course, only in the treatment of personal income derived through the corporation.

THE 1913 ACT

Personal Income Tax	*Corporate Income Tax*
Normal tax (1%)—Dividends exempt, since the tax had been collected at the source.	Normal tax (1%)—Corporate net income subject to tax, as a tool for collection of tax on dividends at the source.
Surtax (1–6%)—Dividends subject to surtax at rates applicable to brackets in which total income falls.	Surtax—no such tax.

[3] The essentials of the plan recommended by the President had been urged as early as 1920 by Professor F. R. Fairchild ("Federal Taxation of Income and Profits," *American Economic Review*, 1920, p. 785). The extent to which the political atmosphere dominated the discussion in 1936 is reflected in the fact that the author of this article condemned the President's (and his own) recommendation in Committee hearings.

[4] For example, Professor A. G. Buehler imputes motives to the President suggested in the following quotations: "The censured wealthy classes would be taxed more heavily, but there would be no opposition among the masses toward selecting the corporations and their wealthy stockholders for new taxes." "The tax would permit the President to give expression to his well-known bias against large corporations as well as to his animosity toward the concentration of wealth. In this role, he would be the champion of the small enterprises against their large rivals and of the small man against the millionaire." (Reprinted by permission from pages 23–4 of *The Undistributed Profits Tax*, by A. G. Buehler, Copyrighted 1937, by the McGraw-Hill Book Co., Inc.) Here is no indication that the proposal was anything but political in nature.

Two alternatives were open: to tax dividends only in the hands of individuals, and eliminate corporate taxes entirely, or to utilize the corporate tax as a mechanism for collection of the tax on dividends at the source. The latter alternative was chosen in 1913 as part of a general enthusiasm for collection at the source to reduce the number of individual returns and to minimize evasion. (It will be recalled that taxes on wage, salary, and interest incomes were also largely collected at the source under the 1913 law.) Collection at the source applied only to normal tax, however, and the personal normal rate was identical with the corporate rate. By choice of this method, inequity occurred only with respect to the small income stockholder, for whom a tax was paid by the corporation even though without collection at the source his total income would have been small enough to be entirely exempt from income taxation. Since cases of this sort were not numerous, and since the tax rates were low, the extent of inequity was not so great as to offset the supposed administrative advantages of source collection.

THE PRESIDENT'S RECOMMENDATIONS, 1936

Personal Income Tax	*Corporate Income Tax*
Normal tax (4%)—Dividends to be subject to normal tax, like other income.	Normal tax—to be eliminated entirely.
Surtax (4–75%)—Dividends subject to surtax, as before.	Surtax—*On undistributed corporate income only*, at rates comparable with personal normal and surtax rates in "typical" brackets.

Under this proposal collection at the source was to be abandoned, and dividend income was to be taxed exactly like other income. With the increase of rates, particularly under the existing corporate tax, and more extensive stock ownership by the lower income classes, the inequity inherent in the existing system was regarded as serious enough to warrant elimination. The recommended tax on undistributed corporate profits was intended to close a loophole of long standing, and was to be imposed at rates which would make it a matter of indifference (so far as taxation was concerned) whether earnings were paid out or put into corporate reserves. Accumulation

of reserves was not to be penalized in an absolute sense, though closing a loophole through which income had generally avoided taxation would create an immediate relative penalty by removing favored treatment. An incidental effect of the closing of this escape route would probably be to encourage dividend distribution. Consequently, not only would tax revenues probably increase, but encouragement of distribution was thought desirable both to raise the level of consumption by dividend receivers and to slow down the accumulation of idle corporate balances thought to be already excessive. It will be recalled that higher employment was an important objective of federal policy in 1936.

THE 1936 ACT AS PASSED

Personal Income Tax	*Corporate Income Tax*
Normal tax (4%)—Dividends subject to normal tax.	Normal tax (8–15%)—On all corporate net income, as before.
Surtax—Dividends subject to surtax, as before.	Surtax (7–27%)—On undistributed net income only.

The law represented a compromise which departed as far as possible from both logical alternatives in accomplishing a proper relation between personal and corporate taxes. The existing loophole was closed by the Surtax on Undistributed Corporate Surplus, but the limit was attained in discrimination against personal incomes realized through the corporation. Instead of eliminating the minor discrimination against small dividends inherent in previous acts, it instituted severe discrimination against all dividend incomes. The effect was to tax dividend incomes twice (under corporate and individual normal taxes) at rates which would typically total approximately 15 per cent, while interest incomes, not subject to corporate tax, would pay no more than 4 per cent normal tax. The Undistributed Corporate Surplus Tax was abandoned in 1939 under great political pressure, and the tax loophole was again opened.[5] The ultimate result of the 1936 fiasco was (is) thus serious discrimination against profit incomes realized from corporate sources,

[5] In 1939 the principle of taxing undistributed corporate surplus, as embodied in the 1936 Act, was abandoned, and the pre-1936 plan of imposing a penalty tax upon "unreasonable accumulations of surplus" was reestablished.

unmitigated by any improvement in the earlier situation of major tax escape.[6] The discrimination was made complete by inauguration in 1941 of a surtax on most corporate income.[7]

Possible Methods of Taxing Income Derived from Corporations In our discussion of the extent to which personal and corporate income taxes have been integrated in practice, we have taken for granted that integration is desired. By integration we mean the adjustment to one another of the two taxes on income so as to avoid double taxation of a given type of income, and so that they complement one another in such manner as to accomplish tax coverage of all items of income.

It is essential to the analysis that we see clearly the relation of corporate to personal income. The corporation is simply a business organization, differing only in certain matters of legal status from other types of business units. If a person operates a corner grocery business of which he is sole proprietor, the net income of the business is never seriously considered as distinct from the grocer himself. If his grocery business earns net $5000 for a year, that is the equivalent of saying that the grocer earns $5000. It would be absurd to claim that the grocer and the grocery together receive income of $10,000. For when the books of the grocery business show $5000 net after payment of all current obligations to outsiders, that amount constitutes the grocer's personal income. No known income tax has ever taxed such income once to the business and again as income to the individual proprietor of the business.

[6] It was estimated by the Treasury in 1936 that, if undistributed profits were allowed to escape taxation at rates applicable to individuals in that year, the loss of revenue would be something over one billion dollars. (Total federal revenues in 1936 were $8.9 billion.) This would not, of course, be entirely and permanently lost, since earnings plowed back would presumably be realized by individuals at some later date either through capital gains on sale of stocks whose values were increased by plowed-back earnings or through later distribution of plowed-back funds. To the extent, however, that earnings were left undistributed *for tax reasons*, their later distribution could be expected only in periods of low personal income or under lower-rate tax laws. A significant revenue loss was inevitable.

[7] The tax, ostensibly to reach tax-exempt federal securities held by corporations, applied to all net income except dividends received from other taxpaying corporations. Rates in 1941 were 6% and 7%; in 1942 they were made to range from 10% to 16%; in the 1945 Act rates were made 6% to 14%.

Let us assume the case of three lawyers who combine their talents and create a "legal firm," a professional partnership. The partnership itself, however, is but an organizational shell within which they practice their profession. During the year the firm receives net income over and above its out-payments to persons and firms outside the partnership. At one stage this appears as income to the partnership (firm), but in reality it is, of course, income to the partners, and is distributed among them according to the terms of the partnership agreement. Income to the firm is but individual income of the owners of the firm, caught in an accounting snapshot prior to its distribution among those who are entitled to it. Even before distribution it is income to which the partners as individuals have economic title. If the partnership earns $20,000 net during the year, and this amount is subsequently distributed to the partners, there would be neither reality nor utility in claiming that the partnership and the partners combined netted $40,000 for the year. In income tax matters there is complete agreement upon these conclusions with respect to business incomes derived through the individual proprietorship or through the partnership. But though the logic of the conclusion extends naturally to the corporation as well, tax practice since 1936 has denied it.

Net income to the corporation is income available for distribution to the owners (stockholders) of the corporation. If it is not distributed it is nevertheless income of the owners which they choose not to take out but to put back into the corporation. But the act of distributing corporate income to its owners (or of reinvesting it for its owners) is not an act creating additional income. Clearly, then, if under the income tax we impose a levy upon the income to the corporation and again upon the distribution of that income to those entitled to it we are guilty of double counting of a single income. From the point of view of equity among taxpayers, double counting is undesirable only when it is not complete. If all incomes were taxed twice at comparable rates, no single taxpayer could reasonably complain against injustice, though he might reasonably complain of the intensity of the double tax burden. But to impose a tax on corporate income before distribution at rates ranging from 15 per cent to 24

per cent, and then to impose a normal tax at 3 per cent [8] after distribution is to practice gross discrimination against such incomes. For profit derived from other forms of business organization are subject to no separate tax before distribution. Wage, salary, interest, rent and royalty incomes are subject only to individual normal and surtaxes. Profit incomes are taxed in the same manner if they are derived from an individual proprietorship or a partnership.[9] Profit incomes derived from a corporation are subject to individual normal and surtaxes, but in addition are singled out for special penalty in the form of the 15–24 per cent corporate tax. This discrimination implies the false presumption that the income of a corporation becomes a second income when distributed to its owners. This theory becomes completely confused, however, when we try to apply the principle of ability to pay separately to corporate and personal incomes. For if the ability to pay implies the ability to sacrifice—to give up utility—then the corporation, being not a natural person but a legal entity existing only "in contemplation of law," cannot experience utility or disutility, and its whole income can be given up without one iota of sacrifice *to the corporation.* Were we to follow strict logic, and on these grounds tax corporate profits at 100 per cent, it would become immediately evident that the income to the corporation *is* the income of the owners of the corporation, and that the owners bear the burden of corporate income taxation.

The first step in proper integration of personal and corporate income taxes is thus elimination of the tax upon corporate income in general.[10] This step would accomplish real progress in improvement of the system of income taxation. But it does not necessarily mean elimination of all income taxes collected from the corporation. For we have still to deal with that part of corporate income not dis-

[8] These rates were applicable to 1947 income under the 1945 Act.

[9] Unless it is a "limited partnership," in which case it is subject to tax as if it were a corporation.

[10] This does not mean that there can be no taxes upon corporations. State and local property taxes would still be paid by corporations, as would business taxes. But the federal corporation income tax grew up as a tool for collection at the source, and not as a business tax distinct from the income tax. Whether or not it is justified as a separate business tax is a question which we later study in connection with business taxes. (Chapter 22.)

tributed and thus not liable to personal income taxation, either under the existing system or the system here proposed. Undistributed corporate income is saved personal income of the owners of the corporation, and represents an ability to pay similar to other income. Professor Groves has cited figures showing that over a period of time approximately one-quarter of all saving is done by corporations out of their income.[11] Such saving has in the past escaped taxation as income, while the remaining three-quarters of total saving has occurred after taxes have been paid on the income from which savings were made. Corporate saving has thus (except under the short-lived undistributed corporate surplus tax) been granted preferred status.

Three possibilities present themselves in solution of the problem of undistributed profits.[12] The first possibility is revival of something similar to the 1936 undistributed corporate surplus tax. The corporation would pay a tax upon that part of individual income reinvested by it, measured by the amount of income undistributed. This possibility has several weaknesses, however, and cannot strongly be recommended in view of the existence of preferable methods. Rates of tax must be determined which at least approach typical rates which would have been paid by individuals if income had been distributed. Under present conditions—a wide range of progressive personal rates and distribution of corporate shareholding among nearly all income classes—any schedule of rates selected could only very roughly approximate the appropriate personal rates. If rates on undistributed income were made progressive with respect to the amount of income withheld, or the ratio of withheld income to total capital, they would operate on quite a different base than do personal surtax rates. When we add the requirement of averaging personal income over a period of years (including undistributed corporate

[11] H. M. Groves, *Postwar Taxation and Economic Progress,* New York, McGraw-Hill, 1946, p. 44.

[12] Some of the possibilities here considered are suggested by H. M. Groves (*op. cit.,* Chapter III, and *Production, Jobs and Taxes,* New York, McGraw-Hill, 1944, pp. 29–48). Groves' discussion of the problem is highly recommended. It is suggested, however, that in the references cited above no such rigorous distinction is made between corporate taxes as income and business taxes as is assumed here.

income) the roughness of the approximation of a tax paid by the corporation to the appropriate levy upon the individual is evident. It is of course true that the roughness would be ironed out in the end, by refunds of overpayments or additional collections in cases of underpayment.[13] But the extent of such year-end adjustments would be so great as to argue strongly for adoption of another alternative.

The second possible treatment of undistributed corporate income is to tax it as capital gain to the stockholder when realized through later sale of his securities. This is probably the least attractive of all. In essence it involves waiting until the security is sold or the stockholder dies before collecting the tax, if, indeed, capital gains do exist at that time. As Groves says, "The timing of taxation is exceedingly important, and it is doubtful if any burdens imposed upon the dead can make up for immunities allowed the living." [14] This proposal is so out of harmony with the ideals which have brought about the system of current tax payments that it should be discarded on those grounds. In addition, if this treatment were applied to reinvested corporate earnings it should in justice be extended to those of unincorporated businesses.

The third possibility possesses the merits of both equity and simplicity. It is to treat the whole income received through the corporation exactly like that received through the partnership or the individual enterprise. With respect to distributed income, it would be accomplished through the action previously suggested—repeal of the present corporation income tax. With respect to undistributed profits the corporation would notify stockholders of record at the end of the tax year of the amount of earnings on their holdings not distributed. Negative earnings (net losses) per share would be reported in the same manner, and similar information submitted to the Treasury for the purpose of checking individual returns. His share

[13] Presumably the individual would include undistributed earnings as a part of his income in his year-end return, and submit receipts for taxes paid for him by the corporation when he settles up for the year. Such year-end adjustments are already numerous under the present system of current tax payments.

[14] Reprinted by permission from page 61 of *Postwar Taxation and Economic Progress,* by Harold M. Groves, copyrighted 1946 by The Committee for Economic Development, published by McGraw-Hill Book Company, Inc.

of undistributed corporate earnings would then be reported by the stockholder on his individual return and the rates appropriate to his whole net income (including undistributed profits) would be paid. Such a plan would operate equitably in all individual cases. It would eliminate the tax loophole now present by removing from corporate management any *tax* influence in the determination of dividend policy. The needs of the corporation for reinvested earnings would predominate in decisions to distribute or not to distribute, and not the desires of individual large stockholders to avoid personal income taxes.

The difficulties of such a plan are not great. Obviously, if income previously untaxed is to be brought under taxation, some further accounting and reporting will result. It has been suggested that the taxpayer might find himself liable for a tax on undistributed profits when he has actually realized no available cash with which to pay the tax. If such embarrassment were to materialize—which is entirely possible—a system of collection at the source is not unthinkable. The corporation now withholds taxes on wages paid, the amount withheld being determined by the wage earner's individual tax liability. It is likely that the same could be done to an extent which would take care of possible financial embarrassment to small stockholders. Groves suggests that the corporation could distribute enough of the earnings as cash dividends to cover the tax liability, though he recognizes that stockholders embarrassed by illiquidity are likely to be those small holders who carry little weight in determination of dividend policy. Finally, we may note the criticism that any taxation of undistributed profit is a burden on saving. This is of course true. But it is as great a burden upon the saving of unincorporated businesses and other individuals as upon those who own the corporation, and to date only corporations have been especially favored. It would seem that discouragement of savings by an effective tax on undistributed corporate profits would be largely offset by elimination of the present corporate normal and surtaxes. And in terms of our experience during the last two decades, there need be little genuine concern for an adequate volume of savings.

Our discussion of the proper relation of personal to corporate

income taxes has proceeded in terms of equality of burden of such taxes upon the various tributaries which make up the personal income stream. We have seen that the current system of double taxation of personal income derived through the corporation imposes a peculiar burden upon this type of income. The principal objective in elimination of the corporate income tax is that of accomplishing elementary justice among income receivers. But an additional evil resulting from such discrimination is its discouragement of investment, since the net returns from the type of investment which carries the major share of economic risk are subject to discriminatory treatment.

Our analysis of the problem brings us to a simple conclusion with respect to the most desirable method of attaining the objective of eliminating this discrimination. Elimination of the corporation income tax in its entirety is the first step. This corrects a fundamental fallacy in current income tax practice—the presumption that income derived through the corporation is both income to the corporation itself and to the owners of the corporation, while other business incomes are simply incomes to the owners of those businesses. It is not evident why, either in theory or in practice, undistributed corporate income should not be treated exactly like undistributed income of a partnership or an individual proprietorship.

An inevitable practical objection is raised against any reform proposal which would reduce the total revenue derived from the income tax. The corporate income tax has been a heavy revenue producer to the federal treasury, and the sacrifice of this revenue, under conditions of high budgetary expenditures and high public debt, is not to be taken lightly. It should be evident, however, that adoption of the proposals above would not result in the net loss of the whole of present corporate income tax revenues. In the first place, the taxation of undistributed corporate income to the individual would offset some revenue loss from abandonment of the corporate income tax. In the second place, elimination of the corporation tax would increase personal incomes derived through the corporation, and thus increase the personal income tax revenues. Let us observe the revenue effects of the proposed changes, when we

assume that: (1) overall, 25 per cent of corporate income is reinvested, (2) the average tax rate on corporate income is 20 per cent, and (3) the average effective individual rate on income derived from corporations is 50 per cent, since the major share of dividends accrues to the higher income groups.

PRESENT SYSTEM:

Corporate taxes per dollar of corporate income	$ .20
Personal taxes per dollar of corporate income ($ .80 remaining after corporate tax; 75% of $ .80 actually distributed and subject to individual tax at 50%).	.30
Total revenue per dollar of corporate income	$ .50

PROPOSED SYSTEM:

Corporate tax per dollar of corporate income	none
Personal taxes per dollar of corporate income (All corporate income taxed as if distributed, at 50% rate).	$ .50
Total revenue per dollar of corporate income	$ .50
Net revenue loss per dollar of corporate income	none

Under the assumptions in our example, which if not exactly square with the facts at least is probably not rigged in favor of the proposal, there is no net revenue loss from the proposed change. If the effective personal tax rate were 40 per cent (rather than 50 per cent as in our example), the net revenue loss would be 4 cents per dollar of corporate income, or 20 per cent of the corporate tax given up. On the other hand, if the effective rate were above 50 per cent, there would be a net revenue gain from the change. The crux of the revenue question in such a revision in tax practice is to be found in the relation of effective personal income tax rates to effective corporation income tax rates. But under rate schedules effective in 1946 and early 1947, it seems probable that virtually no revenue loss would occur.

Viewed in the large, since the revenue loss would probably be minor at worst, and since such revenue loss would occur through elimination of gross discrimination against a particular type of income, it is probably justified in terms of the gain in equity and the

long-run encouragement of the investment of venture capital. And though it is revenue, and not equity, which pays government costs, having attained equity we are on much firmer ground in proceeding toward tax rates which will meet revenue needs.

Elimination of the corporate income tax, and the taxation of corporate profits—whether distributed or not—as individual income, would solve a problem which has caused an inordinate amount of trouble throughout our income tax history. It is the problem of using the corporation as a personal tax dodge. The receivers of very large incomes have at times "incorporated themselves" to avoid payment of high personal surtaxes. The top-bracket corporate rates being considerably below top-bracket personal surtax rates, by making what is actually personal income become income of a corporation for tax purposes the individual can considerably reduce his immediate tax obligation. Suppose an extreme case in which the net income of an individual is one million dollars per year for a period of one year. The effective combined individual normal and surtax rates on such an income would be approximately 90 per cent. Thus in a single year he would be obligated to pay approximately $900,000 tax. By making the major part of this income an income to his corporation, the corporate tax rate applicable would be 38 per cent. Suppose one hundred thousand dollars were to be taken as personal income, and the remainder made income of the personal corporation. The personal income tax payable would be approximately $64,000. The income to the corporation ($900,000) would be taxed at approximately 38 per cent, making the corporate tax $342,000. Total tax in the year in which the million dollar income is earned would thus be about $400,000, as contrasted with a tax of $900,000 if the whole income were taxed as personal income. The final difference is, however, less marked, for when at some future date he draws funds from the corporation he will be subject to personal income tax. Nevertheless, he will likely draw funds from the corporation at a time when his current income is low and will thus fall in a lower surtax bracket, or when tax rates in general have been reduced. Or, by dissolving the corporation at a later date and distributing the assets to himself, he would pay only a capital gains tax of 25 per cent.

Such avoidance is clearly not contemplated in the theory of the

income tax.[15] It arises out of the complexity of recent tax practice, and to attempt to check it as a peculiar loophole not only adds to the pieced-up and patched-together character of the modern income tax, but runs the risk in the patching of adversely affecting some other taxpayers whom it is not intended to disturb. If income to the corporation is treated as income to the individual, this simple return to essentials eliminates the patchwork character of the system. It is frequently both cheaper and more satisfactory to tear down an old house and build a new one than to undertake a program of perpetual repair and renovation.

RECOMMENDED READINGS

Groves, H. M., *Postwar Taxation and Economic Progress*, N. Y., McGraw-Hill, 1946, Chapters 2 and 3.

On the integration of personal and corporate income taxes. Substantially the same material is available in Groves, *Production, Jobs, and Taxes*, Chapter 3.

Simons, H. C., *Personal Income Taxation*, Chicago, University of Chicago, 1938, Chapter 9.

A sparkling plea for taxation of undistributed corporate surplus as personal income.

Dobrovolsky, S. P., "Corporate Retained Earnings and Cyclical Fluctuations," *American Economic Review*, September, 1945, p. 559 ff.

A somewhat technical, but very informative study of the effects of corporate saving upon the flow of income.

Smith, J. G., "Economic Significance of the Undistributed Profits Tax," *American Economic Review*, June, 1938, p. 305 ff.

A short paper whose major value lies in the attainment of balance and perspective concerning the welter of arguments pro and con relative to special taxation of undistributed profits.

[15] It clearly vitiates any logic in terms of ability to pay which a schedule of progressive rates embodies.

CHAPTER 19

COUNTER-CYCLE ADAPTATION OF THE INCOME TAX

PRINCIPLES OF COUNTER-CYCLE TAXATION

To this point we have not had occasion to observe the principles which would govern counter-cycle tax policy. With the income tax, however, we must face the problem squarely, since our findings have consistently indicated more rather than less importance of personal income taxation in the tax systems of the future. It is important to emphasize that taxes do have monetary effects whether or not these effects are intended. Taxes do affect the levels of consumption and investment, and thus the level of income. This being the case, and the monetary effects being so extremely important to general welfare, it is logical that proper income effects be made major objectives in establishment and administration of the revenue system. From the point of view of intent, the traditional view of taxation as an instrument solely for raising governmental revenue, and "functional taxation" as an instrument for taking purchasing power away from individuals, are far apart. But taxation for revenue purposes generally results in reduction of private consumption and/or investment, and thus has "functional" results sometimes good and sometimes bad. And functional taxation produces revenue, sometimes "adequate," sometimes more than "adequate," and sometimes less than "adequate" from the traditional point of view. Though fundamental *intent* of the two approaches is quite distinct, the results may be and frequently are in harmony.

It is repeated that counter-cycle taxation and counter-cycle

spending are integral parts of a single program. The objective is to increase or decrease total private and public spending. While spending policy substitutes public for deficient private spending, in that phase of the cycle tax reductions are intended to encourage increased private spending. As the cycle moves into boom conditions a minimum of public spending and a maximum of taxation to curb private spending are indicated to defend the economy against price inflation. It will be observed that the instinctive preferences of typical individuals would allow this two-cylinder fiscal engine to work only at 50 per cent efficiency. For instinctive preferences are for low taxes and low expenditures. During periods of low income the instinctive preference for low taxes is consistent with functional requirements, while in periods of boom the indulgence of this preference is highly dangerous. During boom periods the preference for low governmental expenditures is instinctively in line with cyclical requirements, while its indulgence during depression represents an almost purely negative policy. Were fiscal policy guided by pure instinct we should be without the services of the more positive of the two instruments, both in boom and in depression.

The Congressional drive in 1947 to reduce federal taxes "20% across the board" was clearly not founded upon proper counter-cycle tax thinking. For the economy had been operating under full employment conditions consistently following the summer of 1946, and prices were at a frighteningly high level and were continuing to rise. It is, of course, tempting to reduce taxes to relieve the squeeze of high prices upon small incomes, but the effect of such action can only be to release funds for private spending which will finance further inflation. During this period Congressional policy was confused and inconsistent; appropriations committees severely reduced budget requests for funds to continue long-planned federal power developments, for the reason (among others) that government competition for scarce materials and labor was inflationary, while revenue committees were busy lowering taxes and thus releasing funds for private spending for similarly scarce goods and labor.[1]

[1] Actually the conflict of policy was due to persistently ignoring the economic effects of such acts in favor of their political effects. The economic arguments were opportunistically utilized where convenient, and ignored elsewhere. It

The compensatory policies indicated were those of spending at the lowest level consistent with national and world obligations, and maintenance of high tax rates. Then if ever, was the opportune time to retire debt out of Treasury surplus, or in the extreme case to hoard surplus in the form of unused Treasury deposits with the banks.[2]

The over-all purpose of counter-cycle taxation is to encourage private consumption and/or investment when the national income is below the full employment level, and to brake consumption and/or investment when full employment has been reached and further spending can only result in inflation. With this over-all purpose in mind we list the required qualifications of a tax system capable of effective counter-cycle use.

1. The incidence of a particular tax must be dependably known.
2. The tax must be applied to a base which is or closely approaches the income stream to be favorably or adversely affected, or to the transaction or activity which it is desired to encourage or discourage.
3. The tax must lend itself to timing of the impact so as to gain the desired effect *when* it will accomplish the purpose intended.
4. The tax (or the system of taxes) should be structurally capable of simple adjustment, both in rate and in base.

1. *Incidence* This point has been mentioned so frequently as to require no further elaboration and only brief repetition. Our knowledge of incidence lacks precision with respect to every type of tax, though the approach to precision is far closer in the case of some taxes than of others. In general, only two classes of broadly

was frequently claimed that anticipated recession could be forestalled by tax reduction. But recession at the time was only a feared future consequence of galloping inflation; it was not a reality during the Congressional debates, for the indexes were moving consistently upward. The argument for tax reduction to forestall *probable* recession is tantamount to insistence that fiscal policy should support continued inflation. It is not only a practical impossibility to support inflation indefinitely, but patently foolhardy. A vehicle is slowed down with greater comfort to all concerned by steady application of the brakes than by collision at full speed.

[2] This latter practice of hoarding Treasury surplus uses the anti-inflationary tool of heavy taxation to remove spendable funds from the market, but avoids the return of these funds to the market through debt retirement.

applicable taxes offer sufficiently precise conclusions as to incidence to meet the requirements of counter-cycle taxation. They are taxes on net income, whose incidence is generally upon the net income itself, and consumption taxes, whose incidence is generally upon the consumer. A tax which is to be used to encourage or discourage consumption or investment—or particular forms of either—will serve badly if its incidence is unknown or only possible of rough estimate.

2. *The Tax Base* For counter-cycle purposes it is clearly evident that the useful tax is that whose base is at the root of the condition to be remedied. A deserter could be executed with a rifle or with an atomic bomb, though the former method is clearly preferable because it confines the punishment to the criminal alone. The dinner roast could be cooked by setting fire to the house, though many unintended results would be obtained. The tax measure which is useful for control purposes should be subject to specific application at the control point. On the other hand, measures which excel as precise instruments for meeting particular situations will frequently serve very badly when general and over-all effects are desired. A carpenter could construct some sort of building by the use of hammer and chisel alone, but the end result would be inferior to that obtained by the use of a full selection of tools. If a general encouragement to consumption is desired, relief from property tax rates would be quite inferior to relief from personal income tax rates in the lower brackets. This is true for the reasons that under property taxation, (1) rate reductions would relieve relatively few potential consumers who (2) do not represent uniformly the class to whom tax relief would result in increased consumption. We may add (3) the institutional fact that property taxes are state and local taxes, which militates against the likelihood of uniform action. Most circumstances under which tax adjustment would be employed to improve a cyclical condition are probably those under which a broad base is desired. This being the case, the personal income tax is clearly that tax which will generally be most useful for counter-cycle purposes. For the base of the tax—income—is also basic to the propensities to consume and to save. We have previously noted the tendency of these propensities to vary with the amount of income.

But although counter-cycle tax adjustments would most commonly operate on a broad income base, there may well be circumstances in which it is desired, for sumptuary reasons, to affect a single type of income, a single type of income disposal, or transactions in a particular class of product. Were conditions to require special encouragement to the investment of venture capital—*e.g.*, conditions of secular stagnation in a "mature" economy—favored treatment could be given to business profits by relatively lower rates upon such incomes and upon capital gains.[3] And were the situation such as to require tax discouragement to the purchase of certain products, this could be at least partially accomplished by selective sales taxes which so raise the prices of those products as to place them out of reach of the mass of buyers.

The point which we here emphasize is that compensatory taxation can effectively utilize only a small portion of the tax measures now in vogue. Property and poll taxes, taxes on business, and taxes on the transfer of wealth at death, do not lend themselves to functional use. Personal income taxes, because they are based upon the fundamental datum of functional control, will be most widely useful for this purpose, while specific—and even general—sales tax measures may be acceptable in special situations.[4]

3. *Timing* The principal economic effects of taxation occur at the time when their incidence is felt. Propensities to spend, save, and invest materialize principally at the point of realization of disposable income. Personal choices respecting the use of income do not coincide in time with dates on the tax calendar. If, therefore, functional taxation is to gain its maximum effects it must influence the magnitude of currently realized income, and bring its influence to bear at the time of realization. A system of current tax payments is thus a *sine qua non* of income taxation if the tax is to be used for functional purposes. Nor does the business cycle accommodate itself to traditional fiscal calendars. If anticipations are to be most affected by tax encouragements or brakes, the impact of tax incidence must

[3] In the opposite situation, where there is a threat of overinvestment, excess profits taxes would be effective instruments.

[4] We reserve analysis which points to preference for income rather than sales taxes in almost any situation for Chapter 20.

be timed to coincide as nearly as possible with changes in anticipations.

We see again, therefore, that many of our tax measures meet counter-cycle requirements very badly. Death taxes and poll taxes are useless for this purpose. Property taxes are so unrelated to the timing niceties of ability to pay, and so thoroughly imbedded in traditional calendars of "tax-due dates" as to offer little prospect of counter-cycle usefulness. Even capital gains and losses, realized only when assets are sold, are out of harmony with the timing aspects of personal choices as to income disposal. Again we are left with personal income taxes and sales taxes as the only types amenable to proper timing.

4. *Adjustability* Other things being nearly equal, the tax system which recommends itself for functional (as distinct from revenue) use is that which allows adjustment of burdens with a minimum of necessary taxpayer adjustment to new and unfamiliar tax practices. Administrative difficulties arise out of the complexity of modern tax systems and the widespread lack of understanding of how they operate. It is difficult for society to adjust to radically new tax measures. Ideally, therefore, the system should be based upon a minimum number of permanent tax measures, and adjustments should be accomplished by simple changes in rate schedules and exemptions in those permanent measures, rather than by the recurrent entrance and exit of special taxes. To avoid the confusion which follows from frequent and radical change in the nature of the taxes used, the basic and permanent system should include a few taxes with which society can become familiar. Counter-cycle adjustment of burdens then becomes a relatively simple matter of adjustment in the rates of a familiar tax, rather than a piling-up and unpiling of a miscellaneous collection of quite unrelated measures.

The frictions inherent in adjustment through the complex process of putting on and taking off separate taxes are of various types. The very unfamiliarity with new measures makes nice and properly timed adjustment difficult. A spendings tax, such as was widely recommended in 1942 to reduce upward pressure on the prices of scarce consumers' goods, would have required the individual to

establish a system of personal accounting which very few persons normally follow.[5] The same is true of the recommended "excess income" tax. In addition to the administrative problem involved in the imposition of unfamiliar taxes, it is questionable whether the effects of such taxes upon spending, saving, and investment are as immediate as are changes in the rates of familiar taxes. Economic man adjusts his actions slowly to novel facts or prospective facts dimly seen. It appears reasonable to conclude that the adjustment of spending to an increase in current rates of an existing income tax would be more immediate and more possible of logical forecast than would that to a novel tax.

A further set of frictions arises out of the necessity for development of techniques for administering new taxes. Legislation takes time and the techniques of administrative management develop with experience. And when downward adjustment of tax burdens is indicated, some time and effort are required to place "on-again-off-again" tax measures in a "caretaker status"—inactive but capable of reactivation. With these frictional considerations in mind, we are led to a clear preference for a tax system constituted by a few broad taxes which contain within themselves the necessary elastic possibilities. Again we find ourselves describing the personal income tax. The general outlines of the tax have become widely familiar among taxpayers. The suggestions made in this and previous chapters would achieve major simplification of the tax, and thereby encourage general familiarity with it. The rate schedules of the personal income tax offer almost unlimited possibilities for rate adjustment without disturbing the body of the tax itself, while further possibilities exist for separation of different types of income for purposes of special treatment, should functional objectives require it.

Though most foreseeable cyclical circumstances would call for

[5] Since the objective was to discourage by tax penalties excessive spending by those whose wartime incomes were abnormally high, a sales tax would not serve. For the sales tax would fall indiscriminately upon the war spenders who were largely responsible for the inflationary pressure upon retail prices and upon those who, because their incomes were fixed or their expenditures consciously curbed, were not responsible. The tax would logically, then, have been imposed upon spending in excess of normal, and would require personal accounting to show excess spending.

general adjustments in the amount of disposable income left in the hands of individuals—adjustments best accomplished through the income tax—there may well be circumstances in which a more selective approach is required. When such circumstances obtain, specific sales taxes may prove useful. And it is probably true that "adjustability" as it refers to sales taxes implies their intermittent installation and removal rather than variation in their rates. This conclusion is indicated by the fact that the conditions in which selective sales taxes may be useful are likely to be constantly changing. Thus, one group of articles may be the object of sales taxation at one time, while quite another list would be desirable under other circumstances. In addition, the conditions in which sales taxes are useful may well be such as to require either absolute exemption or burdens heavy enough to discourage purchase severely. It is well, therefore, to recognize that counter-cycle taxation, though it should operate principally and consistently through the income tax, cannot afford to rule out completely the possible usefulness of consumption taxes.

In concluding our discussion of the principles governing the counter-cyclical use of taxation, it may be profitable to note that "every taxpayer, individual or corporate, is inclined to think that the best incentive would be to reduce *his own* taxes." [6] It is customary for most taxpayers to accept wholeheartedly the principles of and the need for compensatory fiscal policy when there is prospect that the practice of this policy may result in reduction of taxes which affect them. But when the identical principles indicate tax increases during boom periods, or high expenditures in periods of underemployment, there is considerably less consistency in embracing them.[7] The "confidence" factor is probably as important in functional

[6] Marriner S. Eccles, "Possibilities of Postwar Inflation and Suggested Tax Action," *Federal Reserve Bulletin,* March, 1944, p. 225.

[7] The Congressional committee hearings are full of testimony favoring lowering of individual or corporate rates, inclusion of capital losses in full in computing net income, or preferred treatment of capital gains, generally with a view toward increasing consumption and/or investment. The testimony frequently runs in quasi-Keynesian terms, and this small segment of the Keynesian system is accepted without reservation. Major reservations are, however, introduced when the system calls for increase of the debt or of tax rates.

taxation as in functional expenditure. And predictions as to the effects of tax changes upon confidence are by no means always dependable. Each taxpayer naturally feels that a reduction of his taxes would improve his confidence and his anticipations. Whether this would result in more spending of the type desired to promote full employment, more spending of a type contributing only to bottlenecks and inflation, or more hoarding, can generally be determined more dependably by observation of the results than by expressions by the individual as to the state of his confidence.

COMPENSATORY ADJUSTMENTS IN THE PERSONAL INCOME TAX

Our analysis of income taxation in the United States has led us to several conclusions with respect to changes which should be made in order to accomplish greater justice, greater simplicity, and greater adaptability to adjustment for economic (as distinguished from revenue) purposes. We need to be more specific with respect to the kinds of adjustments which can be made to serve functional or counter-cycle objectives. There are two levels of objectives to be considered: over-all and long-run adjustments which are made not to meet particular, temporary, and changing cyclical needs, but to bring the administration of the tax into line with ability to pay and thus remove unintended barriers or encouragements to consumption or investment; and short-run, immediate adjustments to meet particular cyclical requirements.

Over-all Adjustments Nearly all suggestions contained in Chapters 16, 17, and 18 have been made to accomplish greater tax justice among various types of income. It is worthy of note, however, that improvements which relate tax burdens more precisely to ability to pay are in essence functional improvements. Discrimination against a particular type of income frequently has important—though unintended—functional consequences in its influence upon consumption or investment. Our general economic objectives are to promote a high level of consumption and to promote the investment of savings, within the limits of our productive capacity. When the limits of productive capacity are reached these objectives become anti-inflationary. As a general rule, the type of long-run tax structure

required is that which allows freedom of the individual from artificial tax restraints upon the disposal of income. That is, the starting point for administration of counter-cycle tax policy should be a tax system fitted as perfectly as possible to individual ability to pay, in which disposition of personal income is determined by personal needs and economic outlook. Upon that base of fundamental non-discrimination against particular channels into which income may go, we may then apply short-run anti-cyclical adjustments.

Let us review our major conclusions respecting changes in long-run income tax structure, to see in what ways they serve long-run functional objectives.

1. *The Earned Income Credit.* Those "incomes" received from the performance of personal service, being less permanent than property incomes, should be considered partially as net income and partially as replacement of "capital." The effect of such treatment would be the liberation of the capital portion from income taxation, and thus to leave a larger portion of such 'income" after taxes for disposition by the receivers of wages, salaries, and fees. The vast bulk of such incomes accrues to the lower-income groups, whose propensities to consume are high. We may confidently expect the long-run effect of such tax treatment to encourage a higher level of consumption. The tax-exempt portion of such incomes would then be available for savings against future termination of income, releasing for consumption (or saving) a larger share of income receipts. If the worker's "take-home pay" after deduction of current income taxes is increased, the difference will likely go into consumption expenditure if he has consistently followed an orderly program of saving for old age and death (either through private or social security programs). It is thus seen that the earned income credit, in addition to equalizing the "netness" of different income types, accomplishes the desired functional objective of promoting a higher level of consumption.

2. *Averaging of Income Over a Period of Years.* The recommended averaging plan would treat fluctuating income as if it were constant over a period of years. It accomplishes greater justice among taxpayers by considering ability to pay in terms of long-run income. It is, however, difficult to forecast what the effect upon consumption

or saving might be if such a plan were inaugurated. There are reasons to believe that allowing the carry-over of credits for low income would soften the tendency to cut expenditures to minimal limits in years when income is low, on grounds that less saving or more dissaving in low income years can be more easily compensated in periods of higher income because of lighter taxation in those periods. On the other hand, under the averaging scheme, taxes in low-income years would be higher than at present. Which of these two opposing influences would be stronger, resulting in greater regularity or irregularity in consumption and/or investment from year to year, would depend upon the level around which annual income fluctuates, and upon the particular anticipations of the individual. Those with low incomes fluctuating above and below the personal exemption would clearly be encouraged to increase their long-run level of consumption. This is true because when income is above the exemption the tax would be lower than at present because of the carry-over of tax-free credits from poorer years, while it is probable that in poorer years little or no tax would be paid because of unused exemption. In the upper-middle and high incomes the effect would be principally upon saving and only slightly upon consumption. But the consumption-saving behavior of the lower-middle incomes under an averaging plan is hardly predictable with accuracy.

On the whole we may be safe in concluding that the averaging plan would tend to regularize and to raise the level of consumption, because this effect would be expected from low-income groups while the present relatively constant level of consumption expenditure by the higher-income groups would be little changed. As for the level of saving, it might well fluctuate more widely than at present, because of lower taxes in high-income years and higher taxes in low-income years. The total effect upon the level of income would probably not be marked, and thus even if this total effect were negative it would not be serious enough to offset the equity accomplishments of an averaging plan.

3. *Taxation of Capital Gains and Losses as Income.* Those persons to whom the method of taxing capital gains and losses is important are generally to be found in the higher-income groups. Since for these incomes the average propensity to consume is relatively

low, we may expect changes in the method of taxing gains and losses to affect principally the disposition of savings. The changes recommended would impose regular personal income tax rates on net gains (eliminating flat rate taxation), and allow deduction of net losses from other income. We may view the effects of such changes from two points of view: (1) the effects upon realization of gains and losses in any year, and (2) the effects upon disposition of gain and loss income realized after payment of taxes. The first requires only brief treatment, since the tax influence upon decisions to buy or sell capital assets is probably not great. In so far as tax considerations do enter into decisions to buy and sell, the elimination of the low and flat rate on gains would operate to discourage the taking of gains when they would add greatly to an already high income. And likewise capital losses might be realized in larger volume when such losses could be cancelled against high other income. We repeat that tax considerations are probably of minor importance in determining the volume of gains and losses, but the results outlined above would seem to imply some use of gains and losses to level off violent fluctuations in taxable income through the cycle.

The effects upon disposition of income (including gains and losses) can be looked for principally among the high-income groups to whom these changes would be particularly applicable. If income through the cycle were to become less fluctuating, because of the conscious realization of gains and losses to accomplish this purpose, we should expect a tendency toward regularized saving from year to year. But the most significant long-run effect would probably be upon the proportion of savings going into investment. The present scheme, by taxing gains reasonably heavily and ignoring losses, clearly says to the investor that government will share in his gains but not in his losses. We might reasonably anticipate, therefore, that such a change in the taxation of gains and losses as we have proposed would remove one brake upon investment in risky enterprise. For the characteristics of risky investment are relatively large gains and relatively heavy losses. It is presumed to be unnecessary to repeat the national income requirement that savings be invested. The encouragement to investment is more marked when we couple

the proposal to tax gains and losses as income with the earlier proposal to average incomes over a period of years. For the averaging process would allow cancellation of losses against gains and other income not only in the year realized, but over a much longer period. It appears quite certain that the sum effect of these proposals would be to encourage the type of investment most required to break the grip of either cyclical recession or secular stagnation upon an economy.

4. *Elimination of Double Taxation of Corporate Profits.* The principal result of our proposal to eliminate the corporate income tax would be to remove present excessive burdens upon corporate profits. Those whose corporate dividends are a part of low incomes would thus have larger income after taxes than under present arrangements. The expected consequence would be a rise in the level of consumption, and a possible minor increase in savings. Among higher income individuals receiving corporate dividends there would likewise be an increase in income after taxes.[8] Clearly the potential level of private spending is increased. Whether or not this increased income will actually be spent to create additional income cannot be formulated as a generalization. For low-level dividend receivers it would very likely be spent for consumption. For others, it is at least available for private spending, while it is not so available if taxed away from the corporation. And if not privately spent, it is almost certainly preferable to tax it away from individuals for government spending or to substitute deficit spending than to discriminate against this form of income as does the corporate tax.

A principal advantage in eliminating the corporate tax is the encouragement to the investment of savings in corporate enterprise. The major part of industrial production in the economy is carried on by incorporated business enterprises. We may therefore expect that the principal industrial advances will be introduced by corporations, and that they will provide a major share of opportunities for

[8] Other things equal, if the effective corporate tax rate on the net income of a particular corporation is now 20%, elimination of the corporate tax would increase dividends to an individual stockholder by 25%. After taxes his disposable income from the corporation would be increased by this amount less the individual income tax on it.

new investment. To penalize the return from such investment by discriminatory taxation is to discourage the making of such investment. The removal of this discrimination, by removing a penalty, provides relative encouragement.

We consider next the possible economic effects of that part of our proposal which involves taxation of undistributed corporate profits as if they had been distributed. This would most certainly call forth agonized groans from those particularly affected. The opposing argument would probably be built upon the presumption that corporate saving and reinvestment would thereby be severely penalized. It will be recalled that the proposal is made to close a wide avenue of income escape from taxation at existing personal rates. It is clear that this escape has resulted in genuine benefit to certain income receivers, and is badly out of line with the ideals of income tax justice. But the question is, is tax escape an essential dietary ingredient for the goose that lays the golden egg—would investment in corporate enterprise be adversely affected if this means of escape were closed? The volume of savings in the market place available for corporate investment on favorable terms does not appear to have been inadequate over a long period of time. Nor does the volume of accumulated war-time savings and bank reserves appear inadequate at present. Elimination of the corporate tax would very likely provide an increase of personal savings more than adequate to offset the decline in savings by those whose undistributed incomes would be subject to heavier tax. We may feel confident that a poll of experts would reveal far more concern for the inadequacy of investment opportunities to absorb social savings than for the inadequacy of savings to meet investment requirements.

It may be countered that, although total savings are at least equal to total investment requirements, savings will be offered only on terms which provide security of return (*i.e.*, bonds), while the need of the corporation is for risk capital which is willing to take its chances on the success of the venture. Two answers may be given. The first is that the general program of tax revision here recommended—elimination of the corporate tax, allowance of capital losses, and the averaging of incomes and losses over a period of years—constitutes a considerable encouragement to the acceptance of risk

in investment. The second is that the whole program of compensatory fiscal policy has as its goal the elimination of underemployment of productive facilities, which is the major risk faced by industry in a free economy.

Cyclical Adjustments Revisions such as those discussed above would establish an income tax whose structure eliminates the principal discriminations and special treatments which now introduce peculiar tax influences upon particular types of income disposition. Short-run counter-cycle adjustments then proceed upon a basic tax which is adjusted to ability to pay. Counter-cycle use of the tax will frequently involve adjustments which influence the whole range of income levels; frequently also the functional objective will call for particular brakes or particular incentives to certain income classes or certain income types. This latter specialized type of adjustment will purposely introduce discrimination of varying types over short periods to condition natural propensities in the disposal of income.

We consider first the types of income tax adjustments possible under conditions of underemployment, with anticipations (producer and consumer) falling. Fiscal policy under such conditions will place its major dependence upon public spending, though assistance can be had from proper tax policy. This tax policy will proceed upon the recognition that, although the fall in income is principally explained by the abrupt fall in investment, this fall in investment is itself largely caused by a fall in consumption. The demand for investment goods is derived from the demand for consumption goods; a minor fall in the latter typically induces a major fall in the former. Failure to recognize this fact may lead to relatively ineffective anti-deflation tax policy which assumes that, because the decline in investment is more marked than that in consumption, taxes should be lightened on investment incomes as incentives to pursuit of those incomes, and savings encouraged so as to create a larger volume of them and thus force investment at terms favorable to the borrower. The real need under such circumstances is to increase consumption, and little can be accomplished along this line by relief to large- and investment-income receivers. Thus recession and depression income tax policy calls for relatively great tax relief to low incomes; it will

be assisted by relief to high incomes as well, though to a lesser degree and sometimes hardly at all.[9]

In the early stages of a rise in anticipations and income, it is equally important to emphasize the role of consumption, for a rise in investment, though more spectacular, derives principally from a rise in consumption. Incentive rates of taxation on low incomes should thus be continued. And since the rise in investment is due far more significantly to the rise in consumption than to relatively low tax rates on investment incomes or high incomes, the desire for more revenue can be indulged more safely by a moderate increase in rates on the higher incomes. A rise in rates on the higher income brackets may further discourage the development of a speculative investment boom growing out of an over-capitalization of the prospects of consumption increase. We conclude, then, that during the earlier stages of a recovery-prosperity phase of the cycle, tax rate increases at the higher income levels will precede those at lower levels.

The late stage of the upswing in income and anticipations would normally require more rapid rise in tax burdens on lower incomes. The fundamental reason is again the major influence of consumption upon investment. A dynamic economy threatens boom and inflation at the top of the cycle, which can best be controlled by pressure upon consumption, and this can be accomplished by relatively heavy tax burdens upon lower incomes whose propensity to consume is high.[10] In this phase of the cycle it may even become desirable to impose consumption taxes, though only as a last resort.[11]

[9] Those who view the economy in terms of a purely mechanical circuit flow of income, largely ignoring the importance of anticipations, would actually raise taxes on high incomes in recession and depression. This would be done on the grounds that since private savings are not going into private investment, the excess of savings should be drawn off by taxation and disposed of as public investment. This view appears to value too lightly the importance of excessive private savings in producing favorable terms on which private investment funds can be had by industry if some improvement in demand for investment funds can be induced.

[10] If the economy is not dynamic, but "mature," the danger of inflationary boom is not great, and consistent pressure for a higher consumption level would be indicated. Under such circumstances persistently light burdens on lower incomes would be desirable. *Cf.* Hansen, *Fiscal Policy and Business Cycles,* New York, Norton, 1941, p. 300.

[11] We discuss consumption taxes in the following chapter.

There is finally a large group of special economic conditions different from the usual self-propelling business cycle in which functional tax policy may be useful. In a war boom the peculiar characteristic is the absolute impossibility of an increase in consumption. It is then imperative that tax burdens fall heavily upon those lower and rising incomes which are destined principally for consumption, though high incomes must also bear their share of war burdens. Under such conditions of rising incomes the objective is to prohibit a rise in consumption, while industrial conversion and government borrowing will provide heavy demand for investment funds.[12] In other conditions, such as a secular preference for security in investment rather than risk-taking, it may be useful to segregate profit incomes from other incomes and apply lower rates to the former.[13] By and large, however, a plan for the averaging of incomes over a period of years with full inclusion of losses would appear to be a preferable inducement to acceptance of investment risk.

How, in terms of the mechanics of income tax practice, can

[12] In order to provide social justice and at the same time both discourage consumption expenditure and encourage investment, excess profits taxes upon business will be necessary. In addition, the heavy taxes on smaller incomes probably should be partially considered as forced loans. Income is taxed away for the duration of the emergency, but a part of it purchases bonds for the taxpayer, redeemable after the emergency has passed. This plan was proposed by J. M. Keynes, *How to Pay for the War,* New York, Harcourt Brace, 1940, Chapters 5 and 6.

[13] Since the secular trend toward less risky investment is most likely to result from a high incidence of monopoly in the system, tax encouragement to risk-acceptance is like whipping a balky horse with a piece of string. What is needed is vigorous anti-monopoly policy, without which favorable treatment of profit incomes would probably encourage monopoly. The same difficulties with monopoly would appear in a period of deficit spending to promote employment. The point is stated by J. M. Clark as follows: "One possibility, not pleasant to contemplate, is a situation in which government undertakes to guarantee 'full employment' by public spending, while private capital remains apprehensive and an array of monopolistic groups lock horns in an unrestricted struggle to grab the proceeds, thereby causing the spending to be dissipated in price and wage increases, and preventing it from taking effect in ample employment and production of needed goods. In that case . . . Regimentation would be the alternative to chaos." (Reprinted by permission from *Demobilization of Wartime Economic Controls,* by J. M. Clark, copyrighted, 1944, by the Committee for Economic Development, and published by the McGraw-Hill Book Company, Inc.)

compensatory adjustment be accomplished? Since in the majority of instances it is desired to condition consumption or investment from the whole individual income, manipulation of burdens upon the whole income is generally desired. This means manipulation of effective rates of taxation. And such manipulation can be accomplished in three ways. The first is to leave the schedule of rates alone and to enforce a percentage increase or decrease in the tax as computed by those rates. The second is to leave the schedule of rates alone and to adjust personal exemptions. The third is to revise the schedule of rates.

The first of these is likely to appeal on grounds of simplicity. It leaves the basic rate schedule intact, which has advantages in encouraging public familiarity with the tax structure. It has certain disadvantages, however. It is a blanket, indiscriminate method which can hardly meet the usual need for precise application of the adjustment to certain income groups.[14] The results of "across-the-board" 5 per cent reduction of surtax, as provided in the Revenue Act of 1945, are shown in Table 30.

TABLE 30 Effect of Percentage Reduction in Surtax; Revenue Act of 1945

SURTAX NET INCOME ($)	EFFECTIVE RATE BEFORE REDUCTION (%)	EFFECTIVE RATE AFTER REDUCTION (%)	AMOUNT OF TAX EXCUSED ($)
2,000	17	16.3	17.00
10,000	23.4	22.23	117.00
25,000	37.6	35.72	470.00
50,000	50.64	48.11	1,266.00
100,000	64.32	61.10	3,216.00
200,000	75.41	71.65	7,541.00
1,000,000	85.48	81.21	42,741.00

[14] This could be accomplished by addition to or subtraction from the tax, calculated according to established rates, of an amount itself determined by a progressive or regressive schedule of rates. Thus, if incomes of $25,000 were allowed relief of 5% of the calculated tax while incomes of $2000 were allowed relief of 15% of the tax, relatively greater relief would be granted the lower income. Such a scheme of applying a regressive schedule of rates of relief to a progressive schedule of tax rates would make for serious complication, especially in view of the fact that other and simpler methods are available for accomplishing the same purpose.

Restoration to all individuals of a fixed percentage of calculated tax is likely to leave a schedule of effective rates somewhat different from a schedule beginning with an effective rate of 16.3 per cent on a $2000 income and progressing in accordance with ability to pay. The point to be noted here is that across-the-board rate reductions, though they seem to represent horizontal change, are likely to fail to give the relief where it is most productive and to leave a schedule of effective rates different from that intended. For example, the "20% across-the-board" tax reduction proposed in 1947, though claimed as a return toward pre-war distribution of tax burdens,[15] would produce quite different results. Since the war-increases in tax rates had been principally in the lower and middle brackets, a uniform percentage reduction in wartime rates would certainly not leave taxpayers at various income levels in the pre-war relation to one another.[16]

The second method—adjusting personal exemptions—will be particularly useful in those frequent cases when it is desired to affect

[15] The report of the committee stated (Report No. 180 to Accompany H.R. 1, House of Representatives, 80th Congress, 1st Sess., *Individual Income Tax Reduction Act of 1947*, p. 1): "This bill is designed to relieve the individual income-tax payer from a portion of his heavy wartime-tax burden."

[16] The effect is shown in *Individual Income Tax Reduction*, Committee on Ways and Means, 80th Congress, 1st Sess., Hearings on H.R. 1, Exhibit 2, p. 26. Selected figures are reproduced below from Exhibit 2.

NET INCOME BEFORE PERSONAL EXEMPTION ($)	EFFECTIVE RATE, 1939 (%)	EFFECTIVE RATE, H.R. 1 (%)
1,200	0	2.5
2,000	0	7.6
3,000	.3	10.1
4,000	1.1	11.8
25,000	10.1	29.1
50,000	17.7	39.7
100,000	32.5	50.5
1,000,000	67.9	72.9
6,000,000	76.3	76.5

It should be noted that H.R. 1 did not actually provide for a cut of "20% across the board." Rates on surtax net income of $1200 or less were to be cut about 30%; those between $1200 and $302,000 were to be reduced 20%; and those above $302,000 by about 10.5%.

particularly the level of consumption. For an increase or decrease in the exemption is most strongly felt among the lower incomes, and its effect is less and less significant as we go up the income scale. In Table 31 we recast the figures of Table 30 to show the diminishing effect upon higher incomes when the surtax personal exemption is increased by $2000 per taxpayer.

TABLE 31 Effect of Increase in Surtax Exemption

SURTAX NET INCOME (Before increase in personal exemption) ($)	SURTAX NET INCOME (After increase of personal exemption of $2000 per taxpayer) ($)	EFFECTIVE SURTAX RATE BEFORE (%)	EFFECTIVE SURTAX RATE AFTER (%)	AMOUNT OF TAX RELIEF ($)
2,000	0	17	0	340
10,000	8,000	23.4	21.5	620
25,000	23,000	37.6	36.0	1120
50,000	48,000	50.64	49.87	1380
100,000	98,000	64.32	63.67	1920
200,000	198,000	75.41	75.29	1740
1,000,000	998,000	85.48	85.47	1760

Diminishing relief as the income level increases is clearly evident. (This is as true of the amount of tax relief as of the effective rate, since reduction by $1920 of the tax of the person with surtax net income of $100,000 is far less in terms of utility than is the release of $340 to the receiver of a $2000 surtax income.) The reader can observe that the reverse effect would result if personal exemptions were decreased and tax rates held unchanged. Manipulation of the personal exemption thus can be recommended as a useful method of accomplishing adjustment. It leaves tax structure and tax rates intact from period to period, utilizing the practical advantage of permanence. It accomplishes the type of results—encouragement or discouragement of consumption—most frequently desired in counter-cycle use of the tax. And it has the further administrative merit of greatly reducing the number of tax returns during the period of tax relief.[17]

[17] Since the majority of income tax returns are made by lower income receivers, a minor decrease in personal exemptions brings a major increase in the number

The third method of adjustment—revision of the rate schedule—allows potentially the most precise adjustment of the three. Whether in actual practice such results would obtain is, however, questiontionable. Frequent revision of rate schedules suggests frequent repetition of the legislative process, which offers oportunities for subordination of functional objectives to revenue objectives,[18] takes time, and too often finally confronts the taxpayer with a new and unfamiliar tax. Nevertheless, it would be naive to assume that an act could be framed which would be useful without change for a long period. Occasions will arise when revision of rate schedules is the only possible method of meeting an economic situation, and there may be occasions when it is desired to impose—for compensatory reasons—different rates upon different types of income.

We have given far more space to the personal income tax than we shall give to any other single type of tax. This has been done because it is the most important tax now in use, because it promises to increase in importance to the states, and because its qualifications are such as to recommend its use as the major fiscal instrument in the kit of functional-revenue tools. We are led to the inevitable conclusion that a proper tax system will find the personal income tax as the great central bulwark, while other taxes will be relegated to the role of complementary measures when particular sumptuary objectives, particular revenue objectives, or divided governmental sovereignty make their use desirable or necessary.

RECOMMENDED READINGS

Musgrave, R. A., "Federal Tax Reform," *Public Finance and Full Employment,* Washington, Federal Reserve System, 1945, pp. 22–52.

of persons subject to the tax, and *vice versa.* The method of percentage increase or decrease in the amount of the tax (the first method discussed) would maintain a constant number of returns.

[18] A good case could be made to support the thesis that the curious and illogical income tax developments discussed in this and the two previous chapters is largely a product of the habit of major revision of the law by almost every Congress. Pursuit of the revenue objective, intra-Congressional struggles along party lines, and the attempt to compromise the pleas of special interests have frequently meant that the basic logic of the income tax has been seriously compromised. An income tax is an intricate instrument, both legally and economically. Its repair requires expert workmanship, not pressure politics.

A very useful treatment of both the general field of incentive taxation and of counter-cycle tax adjustments.

Gilbert, D. W., "Taxation and Economic Stability," *Quarterly Journal of Economics,* May, 1942, p. 406 ff.

The emphasis is upon counter-cycle tax policy. May be somewhat difficult reading, but rewarding to those who will study it.

Hansen, A. H., *Fiscal Policy and Business Cycles,* N. Y., Norton, 1941, Chapter 13.

Deals with general principles rather than with specific action.

Eccles, M. S., "Possibilities of Postwar Inflation and Suggested Tax Action," Chapter 17 in *Curbing Inflation Through Taxation: Symposium,* N. Y., Tax Institute, 1944.

Very readable paper dealing with the problem in general terms.

Groves, H. M., *Postwar Taxation and Economic Progress,* N. Y., McGraw-Hill, 1946, Chapter 11.

Not strictly a discussion of counter-cycle adaptation, but rather of general incentive taxation.

Crum, W. L., "Federal Postwar Expenditures and Their Implications for Tax Policy," *American Economic Review Supplement,* May, 1945, p. 329 ff.

See comment next above.

CHAPTER 20

TAXES ON SALES

TYPES OF TAXES ON SALES

Taxes imposed upon the sale or use of goods take several forms, some of which are clearly intended to fall upon the consumers of those goods, while others, though apparently intended to fall upon sellers, are generally shifted to buyers. We shall class as taxes upon sales all of those taxes which are imposed upon sellers or buyers of products when the base of the tax is the amount of sales (or purchases). The impact of the tax may be at the point of sale, though it may occur on the occasion of production for sale. Particularly noteworthy are many state taxes imposed upon business enterprises, called taxes upon the "privilege of doing business," but levied upon the volume of sales. Such "business" taxes are, in effect, sales taxes. We shall consider separately (1) customs duties, (2) taxes on the production, sale, or use of particular goods, (3) turnover, or general sales taxes, and (4) retail sales taxes.

Customs Duties Tariff duties imposed upon goods imported into a country are in all mechanical and economic aspects like taxes imposed upon the sale of goods produced and sold within a country. The duty is collected from the importer at the time the goods enter the country, and becomes an element of cost of the goods to him. The intent of the import duty is generally to discourage importation of a good by an artificial tax addition to its price, while the objective of an internal sales tax is almost always to raise revenue. Nevertheless, a tariff for protective purposes incidentally produces revenue, unless duties are so high as to stop importation

completely, while a tax upon the sale of a home-produced good possesses inevitable elements of discouragement of its sale.

Though customs duties are and have been imposed with the primary intent to protect home industry against foreign competition in the home market, such duties can be and have been used for revenue purposes only. This implies that the import duty impose no price disadvantage upon the imported good. If the good is not produced at home the duty will be relatively low in rate, particularly if it is a good of highly elastic demand. The objective will be to maximize the revenue received; *i.e.*, to establish the duty at a level which will make the duty per unit times the number of units a maximum. In the case of goods of relatively elastic demand, a high duty would cause major reduction in the quantity imported, and thus provide less than the maximum amount of revenue. When demand for the good is highly inelastic, the quantity imported would be far less affected by high rates.

The typical case, however, will be that in which the good is both home-produced and imported. In such a case the use of a tariff for purely revenue purposes requires imposition of a comparable tax burden upon the home-produced good. Thus, a tariff duty imposed for purely revenue purposes will be accompanied by an equal tax upon the sale of the home-produced good, and if it is desired to raise revenue by imposing a tax on the sale of a good produced at home it is reasonable that an import duty of comparable severity be levied upon similar foreign-produced goods. Prior to the World War of 1914–18, England used some import duties in this way, in a manner entirely consistent with her "free trade" policy.

Whether imposed for revenue or protective purposes, however, the customs tariff is a tax upon the sale of a good. Its behavior with respect to shifting is exactly like that of taxes imposed upon sales of goods produced internally. This being the case, we are justified in applying to customs duties the same conclusions with respect to incidence and effects as are drawn with respect to other sales taxes.

Taxes on the Production, Sale, or Use of Particular Goods Under this heading we consider a miscellaneous group of tax measures which, although on the surface they appear to be distinct types, possess common basic characteristics. These common

characteristics are (1) they are applied specifically to a selected list of products or sellers, and (2) they are so applied as to make available a price vehicle for forward shifting to buyers of the product and are thus actually taxes upon sales. We shall describe briefly three groups of such taxes: those on the gross receipts of particular businesses, those upon the use of particular commodities, and those upon the sale of particular commodities.

The first group comprises those taxes upon business gross receipts which are imposed by some states as part of the general scheme of state business taxation. Frequently such "business taxes" are not intended as commodity or sales taxes, but as taxes to be borne by businesses out of their net incomes. For example, many state business tax systems apply various measures to different types of business. Corporations in general may pay business taxes imposed upon their net incomes as a proper measure of their supposed business ability to pay, or in return for benefits conferred upon them. But since miscellaneous unincorporated businesses do not possess uniform accounting systems, and thus do not determine their net income by uniform methods, business taxes upon them are frequently measured by their gross receipts or gross income. State business taxes on public utilities are generally levied upon gross receipts. But taxes on gross receipts can easily be allocated as variable costs per unit of output, and shifted forward as an addition to price. Thus business taxes on net income are generally not shifted, while those on gross receipts generally are. Though the intent of the two measures may be identical—imposition of the tax upon business, to be paid from business net income—the results are quite different. A *business tax* of 1 per cent on gross receipts, though called by a different name, is exactly like a *sales tax* of 1 per cent whose base is gross sales of the business. If we are to be realistic, therefore, we must class many so-called business taxes with taxes on sales.

"Use taxes" are a form of excise imposed not upon the purchase or sale of the good, but upon its use. The federal government, for example, imposed a tax in 1942 of five dollars per year upon the use of motor vehicles and boats.[1] Some states with retail sales taxes accompany these measures with a tax imposed upon the use of goods

[1] Repealed as of the end of 1945.

purchased at retail outside the state. The use tax is employed as an instrument to discourage avoidance of the sales tax by purchases outside the state, and to eliminate the competitive disadvantage imposed upon home sellers by the introduction of a tax on sales. Use taxes thus are clearly like taxes on sales so far as their economic effects are concerned. They are, however, infrequently employed, and constitute a minor element in any tax system,[2] partly because they present real administrative difficulties in promoting compliance.

Taxes imposed upon the sale of particular commodities are generally termed "excises" or "selective sales taxes." They are utilized extensively, by both the federal and the state governments, and constitute the most important of the taxes upon particular commodities or sellers. Customs duties are actually of this type, though we have chosen to discuss them under a separate heading because their use is commonly dominated by the objective of protection. The time-honored federal excises are those upon tobacco products, playing cards, and alcoholic liquors. State governments have since 1930 selected for excise taxation certain goods of wide consumption, such as gasoline, cigarettes, and liquors. Federal and state taxes upon that group of commodities making up the established and permanent "excise list" have generally been levied at the higher levels of distribution, the tax being originally paid by the manufacturer or primary distributor. The tax is frequently paid by purchase of tax stamps, which must be affixed to the product before it enters distribution channels.[3] The reason for applying the tax at an early stage in distribution is to simplify administration and compliance. The tax stamp system is used to check compliance with the tax law which forbids subsequent sale of the commodity within the taxing jurisdiction unless it bears the stamp.

As the federal excise list has been lengthened—generally since 1932 and especially during World War II—collection by the Treasury of the many taxes on specific goods has been applied at various distributive levels. The principal manufacturers' excises (collected from manufacturers) are those imposed upon gasoline and oils, automo-

[2] In economic effect renewed motor vehicle licenses are identical with use taxes.

[3] Gasoline taxes, for obvious reasons, cannot be administered by use of the stamp system.

bile parts and accessories, sporting goods, luggage, household appliances, musical instruments, and electrical energy. The principal retailers' excises are those on furs, jewelry, and toilet preparations. Special excises imposed at the "retail" level but upon commodities or services not normally flowing through the usual manufacturer-wholesaler-retailer channels are those on dues and initiation fees, admissions and luxury entertainment, rental of safe deposit boxes, and the use of telephone and telegraph facilities. The types of goods and services taxed by wartime additions to the excise list are not generally such as to permit use of the tax stamp system.

The federal excise laws employ both specific and *ad valorem* taxes. In general, the items in the traditional or permanent excise list—tobacco, playing cards, liquor, and gasoline—are specific taxes; *i.e.,* the tax is a fixed amount per physical unit of the product, without regard for the value of the unit. For example, the federal war rates on some of these products were:

Distilled spirits:	$9.00 per proof gallon
Gasoline:	1½¢ per gallon
Cigarettes:	$3.50 per thousand (7¢ per package of 20)
Playing cards:	13¢ per pack

On the other hand, most of the newcomers in the federal excise list were taxed *ad valorem; i.e.,* the tax is a fixed per cent of the selling price of the product at whatever distributive level the tax is collected.[4] In general the *ad valorem* tax is preferable to the specific tax. A specific tax falls more heavily upon the cheaper brand of taxed article, since it represents a higher percentage of selling price. If the specific tax rate charges what the traffic in cheaper brands will bear, potential revenue is lost on the more expensive brands. If the rate charges what the more expensive brands will bear the cheaper brand is driven from the market, and the cost of the commodity to the low-income buyer is increased both by the tax and by the disappearance of the cheaper article. On the other hand, the

[4] The provision that stamps be affixed to taxed articles is feasible only in the case of specific duties, for variations in price require variations in the amount of tax under the *ad valorem* system, and stamps of various denominations would be required. When prices are changing it would frequently be impossible to determine at time of purchase of stamps the precise denominations required.

ease of administration of the specific tax is considerably in its favor.

Turnover Taxes The "turnover" or "general sales" tax is intended to cover not only all commodities,[5] but transactions at all stages of distribution. Use of this type of tax has not been extensive in the United States. Agitation for its adoption as a federal tax was found among the "Townsendites" in the nineteen-thirties to finance their proposed old-age pension plan. In 1937 a general sales tax, though usually labeled as a tax on the "privilege of engaging in business" was in operation in seven states.[6] Such taxes were imposed at all levels on the gross income of the seller, but at varying rates. No general pattern of rates is noticeable in the experience of these several states, except that sales at retail were taxed at the highest rate (generally 2 per cent), sales at wholesale at the lowest rate (ranging from 0.1 to 0.25 per cent), and manufacturing, mining, farming, etc., at relatively low rates in between (ranging from 0.25 to 1.0 per cent).

The differences in rates applied to sales at the various distributive levels appear to follow very roughly differences in mark-up policy employed by distributors at those levels. These differences, however, recognize the principal economic peculiarity of general sales taxes: the tendency to pyramid one tax upon another. If the tax collected at one stage in distribution is shifted forward by being added to the price of the commodity, the distributor at the next stage will find the cost to him increased by the amount of the tax. He proceeds to apply his mark-up to this cost to determine his selling price, and when the good is resold a sales tax is again paid. The base of the second tax includes the first tax, and the more transactions before retail sale the larger the element of pyramided tax in retail price. But the effect upon the magnitude of retail price is possibly less critical than the premium such a tax places upon the vertical integration of business. For when an additional tax is im-

[5] Specific exemptions may, however, be made.

[6] Arizona, Delaware, Indiana, Mississippi, New Mexico, Washington, West Virginia. In addition, North Carolina, Pennsylvania, and Virginia imposed general taxes upon the privilege of mechandising, excluding manufacturing, agriculture, and mining. *Tax Systems of the World,* 7th Ed., Tax Research Foundation, 1938, pp. 153–6.

posed with each transaction it is of competitive advantage to avoid as many independent transactions as possible in the process of distribution. The integrated firm which is in possession of the good from its raw material stage to retail sale will find only one tax—at retail—included in its price. The good passes through as many stages in the process of production and distribution, but all except the last are *intra muros*. The consequences of such an urge to integration may well be quite inconsistent with the general desire to promote competition.

If it is assumed that the whole tax is shifted forward in any case, a given amount of revenue could be raised by a retail sales tax alone at less cost to consumers than by a general sales or turnover tax. This follows from the fact that under a general sales tax a part of the retail price covers distributors' mark-ups on the taxes paid at earlier stages in distribution. This can be demonstrated numerically by hypothetical example. Suppose three transactions are involved in distribution of a product, and a 10 per cent turnover tax is applied to the selling price at each transaction. Suppose further that each seller sells at a mark-up of 20 per cent over cost to him. The following results will be obtained, assuming the whole tax to be shifted forward at each transaction.

Cost plus mark-up (seller A)	$10.
Plus tax at 10%	1.
Cost to seller B	11.
Plus 20% mark-up	2.2
Selling price (less tax) of seller B	13.2
Plus tax at 10%	1.32
Cost to seller C	14.52
Plus 20% mark-up	2.90
Selling price (less tax) of seller C	17.42
Plus tax at 10%	1.74
Price to final buyer	$19.16

The total tax collected in this set of transactions is $4.06 ($1 + $1.32 + $1.74). Now let us see what the price to the final buyer would be under identical circumstances except that the tax is collected only at the final (retail) sale. The tax is again completely shifted forward.

Cost plus mark-up (seller A)	$10.
Equals cost to seller B	10.
Plus 20% mark-up	2.
Cost to seller C	12.
Plus 20% mark-up	2.4
Selling price (less tax) of seller C	14.4
Plus tax at 28.2% (to provide revenue equal to that received under turnover tax)	4.06
Price to final buyer	$18.46

The difference ($.70) in price to the final buyer under the two types of tax is due to the cumulative effect of applying fixed mark-ups to tax ingredients of cost.

Retail Sales Taxes We have assumed a retail sales tax in our second numerical example above. It is applied only at the point of final (retail) sale, and thus avoids differential advantage to integrated systems of distribution, reduces the administrative difficulties of collection by reducing the number of original taxpayers,[7] and can collect a given amount of revenue with less increase in final price of the product. The retail sales tax, by applying the whole tax at the point of final sale, typically promotes greater consciousness of the amount of tax paid than does the turnover tax. On the other hand, the turnover tax obviates the difficulties inherent in defining firms subject to the tax, since it applies the tax at all levels of sale.[8]

It is possible to provide exemption from sales taxation to almost any selected group of buyers under any type of sales tax. The simplest method of providing tax exemption is to exempt certain sellers from paying sales tax. If, for example, it is desired to exempt foodstuffs from taxation (as is not infrequently done), sellers of

[7] A sales tax on manufacturers and processors or on wholesale distributors would provide greater ease of collection than a retail sales tax, since it would collect from a smaller number of firms. On the other hand, it would present problems in defining those subject to tax because of the variety of firms engaging in the first (or an early) stage of distribution, and would allow the pyramiding of mark-ups on the tax in successive distributive steps.

[8] This is true only if all transactions are subject to tax at the same rate. If different rates are applied at different levels of sale, the problem of defining these levels is not simple.

foodstuffs can be exempt from all provision of the tax. If, however, it is desired to exempt certain buyers (*e.g.*, governments, charitable, educational, and religious organizations) of any product, the mechanics of exemption become more complex. Probably the plan which comes closest to precise accomplishment of this type of exemption is that employed by Ohio, which requires the seller to give the buyer a cancelled receipt for the tax paid at the time of purchase. Buyers entitled to exemption can then forward these receipts to the treasurer for reimbursement.[9] The plan is, however, cumbersome and it seems quite likely that the effort of compliance militates against its satisfactory operation.

EXTENT OF EXCISE AND SALES TAXATION

Federal Government The federal government has utilized customs duties since its origin. The sumptuary intent (protection) of the tariff, however, has so dominated its use as to make revenue results almost wholly incidental and to place it largely outside the scope of our study. Excises on particular commodities, however, have played a continuing role as an important elastic revenue element in the federal system. It is difficult to know to what extent sumptuary motives have influenced the excise list. The sumptuary persuasion is clearly suggested by the principal items on the historical and permanent excise list—liquor, tobacco, and playing cards. On the other hand, the demonstrated inelasticity of demand of these "luxury" items makes them fair game for taxes intended for revenue purposes, for the tax addition to price results in relatively slight tendency to decrease consumption. Perhaps we may say that excises on these commodities provide large and stable revenues without disquieting the consciences of legislators and tax-gatherers.

Sales taxes on liquor, tobacco, playing cards, and more recently gasoline, have provided the solid and stable core of the federal excise system. In modern times these items have been consistently taxed extremely heavily—with the exception of gasoline, which is more heavily burdened by state excise taxes—and thus leave little room for increase in revenue production by rate increase in emergen-

[9] This system is described in greater detail (and with more feeling) in Hearings, Committee on Ways and Means, *Revenue Revision of 1942*, Volume 2, p. 1788.

cies. The real revenue elasticity in the federal excise system has been gained by lengthening and shortening the list of commodities subject to tax. The commodities taxed typically possess three characteristics: (1) widespread consumption, (2) relatively inelastic demand, and (3) status in the range of goods somewhat above the group of accepted "necessaries" of life.

Revenue productivity of the federal excise system is shown in Table 32. The years selected in the table will show the element of controlled elasticity in the system in response to revenue needs. We begin with 1912, at which time we find only those standard items of excise taxation subject to the levy.

TABLE 32 Federal Excise Tax Collections [10]
(*$ millions*)

TYPE OF TAX	1912	1918	1926	1932	1936[c]	1945[e]
Liquor	220	444	26	9	505	2,310
Tobacco	71	156	371	399	501	932
Playing cards	.6	——[b]	4	4	4	——[b]
Oleomargarine [a]	2	2	2	2	2	——[d]
Stamp Taxes	——	22	50	28	65	66
Manufacturers' Excises	——	13	——	——	383	783
Admissions and Dues	——	——[d]	34	11	23	372
Misc. Excises	——	174	253	1	66	1,483
Total	293	812	740	454	1,547	5,945

[a] Includes, in addition, taxes on adulterated and renovated butter, mixed flour.
[b] Included with stamp duties.
[c] Excludes processing taxes under the AAA, and payroll taxes.
[d] Included in Miscellaneous Excises.
[e] Excludes payroll taxes.

During the revenue emergencies of 1918, 1932,[11] and 1945, the basic commodities subject to excise show less remarkable change than do the flexible, off-and-on categories.[12] The more remarkable con-

[10] Sources: Bureau of the Census, *Statistical Abstract of the U. S.*, 1920, pp. 718, 720; 1926, pp. 172–3; 1933, p. 170; 1938, p. 181; 1946, p. 319. Figures do not necessarily add up to totals, because of rounding.

[11] The excise list was lengthened significantly in 1932 under pressure for added revenue, but did not begin to produce this added revenue until the following year, and then for only a portion of the fiscal year.

[12] We must note, however, the fluctuation in the proceeds of liquor excises. Their low productivity in 1926 and 1932 is due to the effect of the prohibition act;

sciously planned increases in excise revenues are evident in the last four categories. In revenue emergencies the number of items taxed under these categories is greatly increased, and high rates are applied all along the line.

During the last quarter-century the excises have consistently been regarded as an important foundation stone of the federal revenue system. They have typically furnished roughly one-fifth of total revenues, and during World War II declined slightly from that proportion because of the immense increase in income and profits tax revenues. Nevertheless, they are consciously used as a revenue anchor to windward, more dependable in revenue productivity than are income and profits taxes, and amenable to notable increase and decrease, especially through the simple expedient of subjecting a larger or smaller number of items or sellers to the tax.[13]

State Governments The experience of the states shows very marked increase in the use of commodity taxes since 1930. This increase has occurred along two lines: new excise taxation of specific commodities—principally liquor, cigarettes, amusements, and gasoline—and the imposition of retail sales taxes. Repeal of the prohibition act is of course the principal cause of the rise in liquor tax revenues in recent years. The regulation of traffic in alcoholic liquors devolves principally upon the states, and it is not surprising to find

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productivity recovered in 1936 after repeal, but not strikingly by comparison with 1918, partially because a considerable share of liquor taxation went to the states. The striking increase in 1945 is due to heavier taxation and increased consumption. The steady (and marked) increase in tobacco tax revenues is due to the long-run trend of increased consumption, particularly of heavily taxed cigarettes, and to the rise in incomes after 1932. In recent years it is not significantly due to an increase in tax rates, and is thus not an "elastic" tax in the sense that it is used to increase revenues in emergencies by a manipulation of rates or inclusiveness.

[13] We should not lose sight of a peculiar emergency use to which the excises can be put. They lend themselves to finely-focused sumptuary use. During the World War II period, for example, it is clear that several items were brought into the excise list to discourage their purchase or use. The taxation of automobiles, automobile parts, lubricating oils, and tires was easily justified in terms of the scarcity of these items and of motor fuel. The same may be said of taxes upon electrical energy and telephone and telegraph service, while heavy taxation of items such as luggage and jewelry reflects the clear purpose of channeling increased incomes away from the markets for luxury consumption goods.

taxation (or state liquor stores) accompanying the imposition of regulation. Sales of gasoline had been taxed in all forty-eight states prior to 1930, but between 1930 and 1936 twenty-one states increased rates at least once.[14] By 1937, twenty-one states imposed specific excises upon cigarettes and other tobacco products, and in 1946 the number had grown to thirty-one.[15] However, twelve of these states had such taxes prior to 1930 (though none before 1921), while nine added them between 1930 and 1937.[16] Twenty-six states had excises on admissions to some public amusements in 1937.[17] In the same year excises on the following items were employed by enough states to justify mention: oleomargarine (31 states), horse racing and pari-mutuel betting (23 states), and registration of bonds and morgages (9 states). Miscellaneous excises, including those on motor fuels, alcoholic beverages, and tobacco, but excluding general and retail sales taxes, produced 34 per cent of total tax revenues of the states in 1939 and 41 per cent in 1942.[18] When general and retail sales taxes are added, we find taxes on commodities to have produced 48 per cent of total state tax revenues in 1939 and 57 per cent in 1942.[19] Taxes of this sort thus represent by far the most important group of revenue producers utilized by states, and justify the characterization of state revenue systems as being principally dependent upon commodity taxes.

General and retail sales taxes contributed approximately one-sixth to one-seventh of all state tax revenues in the period 1939–42. By 1946, twenty-four states had taxes which should be designated as sales tax measures, as distinguished from specific excises.[20] Of these,

[14] *Cf. Tax Systems of the World*, 7th ed., Chicago, Commerce Clearing House, 1938, p. 224. With two exceptions the twenty-seven states which did not increase gasoline tax rates between these dates already had high rates in 1930, ranging from 3¢ to 6¢ per gallon. The weighted average tax per gallon in 1936 was 3.85¢.

[15] *Tax Systems*, 10th ed., Chicago, Commerce Clearing House, 1946, pp. 195–9.

[16] *Tax Systems of the World*, 7th ed., Chicago, Commerce Clearing House, 1938, p. 158.

[17] *Ibid.*, p. 166.

[18] Federation of Tax Administrators, *Recent Trends in State Revenues*, Research Report No. 16 (no date), p. 6.

[19] *Ibid.*

[20] *Tax Systems*, 10th ed., Chicago, Commerce Clearing House, 1946, pp. 223–8.

seventeen were retail sales taxes, imposed upon gross receipts from the sale of tangible goods at retail; five were imposed upon gross receipts from sales at all levels, and thus were clearly "general sales taxes" by intent; two were imposed upon sales at wholesale and retail, and were thus approximate general sales taxes. Of the seventeen states employing retail sales taxes, most taxed these sales at 2 per cent, though rates varied between 1 and 3 per cent.

Rapid extension of use of sales taxes by the states occurred concurrently with the rise of specific excises during the middle thirties. All seventeen states with retail sales taxes adopted these measures subsequent to 1932. Four of the seven states with general or near-general sales taxes had such measures prior to 1933. The reason for this marked expansion after 1932 is clearly evident; the decline in other revenues, coupled with heavy demands for relief outlays and fear of serious budget deficits, urged a serious search for new and productive revenue sources. Commodity taxes were most frequently the answer to this search. New commodity tax laws were generally drawn to pour the new revenues into the general fund of the state, as this fund bore the particular brunt of relief expenditures.[21] In the minority of cases where the law designated a particular object of expenditure the following are to be noted: welfare, schools, and property tax relief. The new revenues were desired for school purposes because such expenditures would otherwise suffer severe reduction as general funds declined. Sales taxes for property tax relief did not indicate a long-run plan to abandon the property tax, but merely to provide temporary relief from the oppressive burden of existing property tax rates during depression.

In general we may observe that the choice of new revenue sources lay between personal income and commodity taxes. The latter were more generally adopted because of already heavy federal taxes on personal incomes and because of the extreme instability of the revenues from such taxes. On the other hand, commodity taxes were relatively dependable revenue measures. They seem to have had particular appeal on grounds that the new tax measures were to be temporary for the duration of the revenue emergency. In one state

[21] The exception was, of course, the gasoline taxes, whose increased revenues continued in most cases to be dedicated to highway funds.

the sales tax was recommended (though not adopted) partly because it was regarded as more burdensome than the personal income tax, and would therefore be more readily discarded with the passing of the emergency.[22] Far from being temporary fiscal measures, the trend in sales taxation by the states appears to be markedly rising. Though there were scattered examples of rate reduction during the war period, post-war revenue emergencies in the states promise not only restoration of depression rates, but adoption of sales tax measures by states which had previously avoided them.

Local Governments Relatively little use has been made of commodity taxes by local governments. Some cities have employed automobile use taxes, and a few cities, notably New York City and New Orleans, have employed retail sales taxes. On the other hand, however, several of the state commodity tax laws have provided for sharing of the proceeds with local governments. Of special excises, twenty-nine states shared gasoline taxes with local governments in 1937, ten shared alcoholic beverage taxes, and two shared cigarette taxes. A few states shared—though generally grudgingly—their depression-born sales tax revenues with local governments. Most frequently when local governments participated in these revenues they shared only in the remainder after major lump-sum withdrawals by the states. These revenues, when locally shared, appear to have been made available to local governments usually for the designated support of schools. On the whole, however, local governments increased their dependence upon the property tax, and in some cases were assisted by state governments through state adoption of commodity taxes, making possible more moderate state participation in the taxation of property.

[22] Recent experience does not demonstrate that the sales tax is easy to abandon. Several of the sales tax laws of the nineteen-thirties provided for their own expiration. It appears that in most cases, however, the law was subsequently extended beyond the original date of its intended expiration, with the probability of permanence. In eight states sales taxes were abandoned, generally because of their unpopularity. Even the state government surpluses of the war years have failed to accomplish the repeal of these "emergency" taxes. (*Cf.* Roy G. and Gladys C. Blakey, *Sales Taxes and Other Excises*, Chicago, Public Administration Service, 1945, pp. 2–4.) The sales tax movement in the states has received new impetus since World War II, to meet the higher costs of government under inflation conditions.

SHIFTING OF TAXES ON SALES

The popularly accepted conclusion with respect to the incidence of taxes on sales is that such taxes are completely shifted forward as an addition to the purchase price. This presumption is, indeed, an integral part of consumption tax theory. Sumptuary use of a consumption tax—to discourage purchase and use of a good, as in the case of a protective tariff—could hardly be expected to produce the desired results unless forward shifting were taken for granted. The selection of items for special excise taxation for revenue purposes generally favors goods of wide and inelastic demand, thereby taking for granted that the tax addition to price will reduce consumption relatively little. And it has even been argued that adoption of a sales tax is desirable to offset excessively steep progression in the federal personal income tax and to adjust the burdens of the whole tax system more equitably with respect to ability to pay. Clearly this implies that the burden of "consumption" taxes is upon consumers, who are predominantly in the lower income groups.

A tax per unit upon production or sale of a good adds to the seller's cost of production or sale. If the tax is specific (a stated amount per physical unit of the good produced or sold), it is a constant addition to cost per unit, whether cost is measured marginally or as an average. If it is an *ad valorem* tax of a given per cent of the price of the good, it becomes a decreasing addition to variable cost per unit, since typically the larger the quantity sold the lower the price per unit. Taxes imposed upon gross sales or gross income of the seller are of this type. The general effect of tax additions to cost is the reduction of supply—*i.e.*, quantities offered for sale at given prices are smaller than they would have been without the tax. In terms of our general discussion of incidence (See Chapters 13 and 14) marginal cost is increased by the tax, with consequent sale of a smaller quantity of the good at a higher price. Under conditions of monopolistic competition the intersection of marginal revenue and and marginal cost, which determines the optimum output of the seller, moves to the left,[23] and the market price rises. Under pure competition the decrease in market supply raises price, and thus raises

[23] See Figures 8 and 11.

the horizontal demand line facing the individual seller.[24] It is clear, therefore, that in the general case an increase in price will result from imposition of the tax. It is upon this type of observation that the general conclusion with respect to forward shifting is based.

Limitations upon Forward Shifting To show that imposition of a commodity tax typically results in an increase in price is not to show that the tax is shifted forward *in toto*. What proportion of the tax is shifted depends upon the elasticity of demand and the elasticity of supply (cost). If the demand facing the seller were completely inelastic (a vertical line, where quantity taken would not decrease at all with an increase in price) the tax could be completely shifted.[25] At the opposite extreme, if the demand were infinitely elastic (a horizontal line, where no quantity would be taken at a higher price) the tax could not be shifted forward at all. In this case the incidence of the tax would be completely upon the seller, though other important economic effects would be the disemployment of some of the factors of production—incident to the decrease in production—and the reduction in quantity consumed.

The typical situation would lie somewhere between these extremes of zero and infinite elasticity. And in the typical situation a part of the incidence is upon the buyer, while the other part is upon the seller. The more elastic the demand—other things equal—the greater the proportion of incidence assumed by the seller. But other things (principally the elasticity of supply) are not necessarily equal. When supply is relatively inelastic—*i.e.*, marginal costs rise steeply with an increase of output and fall steeply with a reduction in output —the seller is in a position to lower cost markedly by a small decrease in sales. This means that the tax is less readily shifted under given demand conditions, because although demand may be elastic and the price can be only slightly increased by a decrease in sales, this decrease in sales will so decrease costs as to leave profit margins nearly intact. On the other hand, if the sellers' costs are elastic, shifting of a larger proportion of the tax under given demand conditions will entail greater reduction of output, with serious effect upon total profit. This is true because under elastic cost the net income per

[24] See Figures 9 and 10.

[25] Assuming that price was not already at the upper limit of demand.

unit is typically small, and the seller would likely be better off in the long run to maintain his volume of sales at a high level.

Institutional factors will affect the degree of shiftability of a tax on commodities. Among these we mention specifically the coverage of the tax and the size of the tax with respect to its customary price. Both of these actually affect shifting by their influence upon demand. If the tax is imposed within a small geographical area and it is not difficult to buy outside the taxed area, it will be relatively difficult to shift the tax. When the good is readily available from an untaxed source a rise in price in the taxed area will encourage purchases outside. This means that the demand facing sellers in the taxed area is relatively elastic, and the resistance to shifting is great. Obviously the more insulated the market in which the tax is imposed, the less elastic will be the demand.[26] Recognition of the difficulty of shifting sales taxes applied in a narrow geographical area has led to adoption by many sales tax states of "use taxes." These impose approximately equivalent burdens upon goods purchased outside and brought into the taxed area for use. The intent is both to bolster sales tax revenues and to eliminate the tax-created competitive disadvantage to the home seller. In the same manner, taxation of a narrow list of commodities while leaving substitutes untaxed will make forward shifting difficult. An attempt to increase prices to shift the tax would result in defection of buyers to substitutes.

The size of the tax in relation to its price will have practical effects upon its shiftability. When the price of a product has been established through long experience as being "customary," any higher price will typically cause significant reduction in the quantity purchased. This is but another way of saying that the demand is highly elastic (at the moment, at least) at prices higher than that which is customary. Under such conditions the seller will be reluctant to increase price in order to shift a small tax, though he may

[26] It will be noted that we have not said an attempt to shift the tax will make the demand more elastic. The demand facing sellers in a given market is a schedule of the quantities which will be taken from those sellers at various prices, and these quantities assume the existence of similar products available in competing markets. Imposition of the tax and subsequent attempts to shift it by increasing price will demonstrate the elasticity of demand, but will not create it.

be forced to attempt to shift a large one simply because it is too heavy for him to absorb.[27]

Price theory clearly indicates a significant amount of forward shifting of taxes on commodities, though how large a part of the tax in a given instance actually is shifted will be determined by a number of factors varying among different products, different markets, and different sellers. It is naive to assume, except as a very rough generalization, that the whole tax is always shifted. The intense opposition of merchants to the imposition of sales taxes can hardly be explained solely in terms of the costs to them of compliance and shifting; as a group they realize that a portion of the incidence typically falls upon them. Nevertheless, though there is a good deal of diffusion of incidence and other effects, a tax system which depends heavily upon consumption taxes inevitably falls with heaviest force upon the class of consumers. Such a tax system, therefore, because the largest share of consumers are in the low income classes and the consumption tax itself is proportional, has a regressive effect in terms of the relation of the incidence to the ability of the incidence-bearer to pay. Enthusiasm for sales taxes must be catalogued as a retrogression from the principle of tax payment according to ability.

Legal Aids to Shifting Commodity taxes are almost uniformly intended by legislators to be shifted forward to consumers. Recognition of economic and other obstacles to shifting have frequently led to inclusion in the law of provisions to facilitate shifting. One of these provisions is the enactment of a use tax, mentioned above, to remove the premium on buying outside the taxed area. Another legislative technique employed by some states is to impose the tax upon each transaction separately rather than upon the gross sales of the seller. The intention is to specify that the tax is a cost of sale, not a general cost of doing business, and is to be paid at the time of purchase. This may aid in focusing the attention of both

[27] A special case of this sort arises with small items selling at small prices. A sales tax on such an item would infrequently be shifted forward as an addition to the price, since it could hardly be sold at retail for 5.2¢; it would more frequently be shifted through reduction in quality or content.

buyer and seller upon the legislative intent that the tax be shifted. It may forestall objections by purchasers to addition of the tax to price, and impress upon the seller the importance of shifting. To facilitate precise shifting, some states have printed or struck off "tax tokens" in denominations of one, two, or five mills. This makes possible the collection of taxes precisely equal to the rate times the base, even with small purchases. The token plan, however, is not widespread; it adds to the cost of administration and is inconvenient to purchasers. The usual method is simply to assess the tax to the nearest cent at the time of purchase.[28]

Finally, in a few states the sales tax law specifically requires that the whole tax be shifted forward to the consumer. The intent of such a provision goes beyond the requirement that (say) two per cent be collected in addition to the price at the time of sale. For although a "tax" is collected it is perfectly possible for it to be absorbed by the seller in the form of a selling price lowered by the amount of the tax. Thus the price plus tax may be no higher than the price would be if there were no tax. If such were the case the tax would not be shifted. A legal requirement that the tax be shifted would appear to be difficult of enforcement. It is intended, however, to avoid granting any competitive advantage to the seller who might hope to attract business by absorption of some part of the tax.

[28] Ohio employs the schedule plan in accomplishing collection of the precise amount of the tax, but in so doing applies varying tax rates. The schedule of tax liability is:

On purchases of \$.09 to \$.40, one cent tax.
On purchases of \$.41 to \$.70, two cents tax.
On purchases of \$.71 to \$1.00, three cents tax.
On larger purchases, three cents per dollar plus the schedule above on amounts above the full dollar.

If such a schedule were employed and the state were then to collect from the seller at a flat rate of his gross sales, the amount of tax paid by consumers might differ considerably from the amount received by the treasury. To avoid such differences the seller is required to buy sales tax receipts in various denominations from the treasury; on collecting the tax on a transaction the seller is required to present the stub of a tax receipt to the buyer, retaining a part for himself. Such cancelled receipts retained must then be forwarded to the treasury for accounting purposes. If a receipt previously purchased by the seller is cancelled each time the buyer pays a tax, the whole amount of the tax collected must be paid to the state.

THE CASE FOR THE SALES TAX

We have seen that frantic search for new revenues resulted in a large crop of state commodity taxes—both excises and sales taxes—during the decade of the nineteen-thirties. During the same period there was strong agitation for adoption of a federal sales tax. Again during 1942 and 1943, when government sought additional revenues, the federal sales tax drive became intense. Although the intensity of the agitation for federal adoption has diminished with the end of the war, it is still strong in some quarters. Two objectives appear uppermost in recent agitation: to provide revenues for war debt reduction, and to reduce the burden of federal income taxes. But though agitation for a federal sales tax virtually disappeared with the choice to tax incomes more heavily, the sales tax has since the war again become a lively issue among the states. High postwar price and wage levels have sent the states on a new search for new revenues, and the sales tax is again a formidable contender. The choice appears to be principally between sales and income taxes, and justifies careful analysis of the case for the sales tax.

Professors Haig and Shoup have pointed out after investigation that the most vocal opposition to the adoption of sales taxes by the states has come from retailers.[29] This is not surprising, in view of the typical absorption of a portion of a retail sales tax (the type most widely used) by the retailer. In addition, however, a large share of the costs of collection and nearly all of the considerable cost of compliance with the provisions of the law fall upon the seller. Two other classes—consumers and labor—have shown weak opposition in view of the tax obligation which they bear under a sales tax. Weakness in opposition on the part of consumers is not surprising, as they have seldom been effective in impressing their interests upon legislators. Haig and Shoup account for labor's weak opposition on the grounds that, during the early thirties when the issue was being decided, labor was comparatively impotent, and that since in most states the revenues to be raised were largely destined for education and unemployment relief, it would have been difficult for labor to have effectively opposed enactment of the tax.

[29] *The Sales Tax in the American States*, New York, Columbia, 1934, pp. 16–24.

The groups principally agitating for state sales taxes during the thirties were those who stood to gain from a lightening of the property tax burden.[30] Specifically, farmers and real estate interests were enthusiastic for the sales tax. The authors cited above mention as vocal proponents the highway transportation interests, who feared "diversion" to emergency use of the large highway fund revenues when general funds were unable to support general functions. The supporters of a federal sales tax have generally been those who see in the sales tax a possible opportunity for reduction of steeply progressive and high income tax rates—principally incorporated businesses and individuals in the high personal income brackets. In addition, there are those individuals who favor a federal sales tax on grounds of objective tax theory, while others, from desperation over the magnitude of the public debt and the belief that existing taxes cannot be pushed further, accept the sales tax as a last necessary resort.

Ignoring the fact that much agitation for adoption of a sales tax is motivated by the desire to transfer existing or future tax burdens to some other group, the case for the tax runs in terms of the following:

1. The stability of commodity tax revenues.
2. The relatively low cost of collection.
3. The regressiveness of the tax.
4. The sumptuary possibilities in the tax.
5. Its ability to produce revenue immediately.
6. Its promotion of tax-consciousness.

1. *Stability of Revenues* Sales tax revenues are generally considerably more stable than are income tax revenues. The level of consumption is more stable over a period of time than is the level of income,[31] and thus the base of the consumption tax is more stable than that of the income tax. In addition, while the consumption tax is proportional the income tax is typically progressive. Fluctuation in the income base results typically, therefore, in even more violent fluctuation in income tax revenues. This is true

[30] *Ibid.*
[31] See Figure 1.

because an increase in national income means some increase in average individual incomes, making many individual incomes subject to higher rates in the progressive schedule. The reverse is true when national income falls. From the purely revenue point of view, ignoring the principle of ability to pay and the burdensomeness of the tax system, an advantage exists for the sales tax. On the other hand, it would be incorrect to assume that commodity tax revenues are highly stable in an absolute sense. Federal excise revenues increased by approximately 300 per cent between 1933 and 1941, though there was little change in the excise list. And although it is impossible to demonstrate the instability of sales tax revenues accurately by comparing revenues actually received (because of frequent changes in the extent to which sales taxes were used), the level of total consumption in the economy increased by approximately 50 per cent between 1920 and 1929 and fell by approximately 20 per cent between 1929 and 1932.[32]

From the point of view of general economic well-being, stability of revenue is on balance highly undesirable. For stability of revenues means that tax *burdens* rise as incomes fall and fall as incomes rise. The consequence of such behavior to the levels of income and employment will be clearly evident to readers of earlier chapters in this book.[33] If fiscal policy is to be integrated into general economic policy, controlled instability of revenue is a virtue and not a vice.

2. *Cost of collection* It is commonly assumed that the sales tax "collects itself," and thus involves relatively slight cost of collection. If so, this would be a real merit of the tax. Apparently, however, so far as available figures show, the sales tax is relatively costly to administer. On the basis of experience in the several states employing retail sales taxes, it has been concluded that, "It appears to be generally true that a 3 per cent [sales] tax can be administered for less than 2 per cent of the revenue; a 2 per cent tax can be administered for less than 3 per cent of the revenue; and a 1 per cent tax can, on the average, be collected for a little more than 3 per

[32] Ohio sales tax collections varied between $40 million and $63 million per year during the period 1937–41. *Cf.* Hearings, House Committee on Ways and Means, *Revenue Revision of 1942,* Vol. 2, p. 1788.

[33] Specifically, Chapters 4 and 5.

cent of the revenue."[34] Since most retail sales taxes now in use by states apply a 2 per cent rate, we select for comparison with other taxes an average cost of collection just under 3 per cent of revenues. It must be borne in mind, however, that this represents only the cost *to government* of administration. Actually the cost of collection and compliance which is imposed upon the seller may be greater than that of administration by the state.[35]

Comparison of various taxes in terms of their administrative costs is likely to be quite unsatisfactory and inaccurate, since it is frequently impossible to allocate administrative expense to particular tax measures. Investigations have led to estimates that in the few areas studied the costs of administration of the property tax range on the average from 2 per cent downward.[36] The cost to property-owners of compliance with the tax is of course extremely small. The Secretary of the Treasury reports that for fiscal 1945 the administrative costs of the Bureau of Internal Revenue were 3/10 of 1 per cent of the revenue collected. Of the nearly $44 billions in revenue, nearly 80 per cent was income and profits tax. As in the case of sales taxes, a considerable portion of total "costs" of collection fall upon those responsible for withholding taxes from wages and other incomes.

In view of the scarcity of dependable figures it is impossible to arrange the various tax measures in order of the expensiveness of their collection and administration. It does appear, however, that so far experience does not show the sales tax to possess any marked advantage in this respect. It has frequently been suggested that should the federal government adopt a sales tax it should be collected at the wholesale level. Should this be done the cost of collection and administration would probably be lower than is typical for state retail sales taxes.[37]

[34] Quoted in Twentieth Century Fund, *Studies in Current Tax Problems*, 1937, p. 128, from *Sales Taxes: State vs. Federal*, research report prepared for the Interstate Commission on Conflicting Taxation.

[35] Some few states allow the seller to withhold a small part of his tax liability as payment for performance of the collection function. Illinois and Arkansas allow approximately 2%; Missouri 3%; Michigan $600 per year. Blakey, *op. cit.*, p. 12.

[36] *Studies in Current Tax Problems*, pp. 120–4.

[37] Generally, the larger the revenue and the broader the application of the tax, the lower the percentage cost of administration. Even a federal retail sales tax would probably be more efficiently administered than are state sales taxes.

3. *Regressiveness of Sales Taxes* Although technically a proportional tax, the sales tax, whose incidence falls principally upon consumers, is regressive with respect to the personal income from which the tax is paid. The reader may well wonder that regressiveness is regarded as a virtue, in view of general acceptance of ability to pay as the proper basis for allocation of the tax burden. Those who favor sales taxes because of their regressiveness do so upon the presumption that the tax system is already too steeply progressive,[38] and requires counterbalancing by taxes which fall heavily upon lower incomes. The argument is obviously founded upon an assumption that income tax rates are too steeply progressive in terms of ability to pay. This assumption is not subject to proof—one way or the other—and is essentially a matter of opinion. If we accept this assumption there is still little logic in enactment of a regressive sales tax to counterbalance overenthusiastic application of progression in the income tax. If this is used as an argument for a federal sales tax, it has little force. For the legislative body which would accept the sales tax has legislative authority over the rates of income tax. If, therefore, income tax rates are too steeply progressive, the logical step is to make this progression more gradual, either by lowering rates at the top, by raising rates on lower incomes, or by lowering personal exemptions. The argument has more force as applied to the states (assuming federal taxes to be too steeply progressive). For state governments can do little to bring about change in federal tax rates, and may thus more reasonably adopt for themselves new taxes which in their judgment round out a system whose incidence is reasonably allocated according to ability.

4. *Sumptuary Possibilities* There are circumstances in which it is desired to curb consumption. During a war period, for example, the scarcity of consumption goods relative to consumer

[38] *Cf.* testimony of F. R. Fairchild before Committee on Ways and Means, *Revenue Revision of 1943*, p. 639, "What we now need to counterbalance these strictly progressive taxes on incomes, estates, and so forth, is some tax of the other sort, so that the balanced picture may give us a reasonably well-rounded tax system." Also, "This regressive distribution of the burden of the [sales] tax would not be material so long as the rate of the tax was low and would be counterbalanced by the highly progressive distribution of the federal personal income and estate taxes." (*Report of the Connecticut Special Tax Commission of 1933*, p. 583.)

purchasing power led to agitation for the type of revenue measure which would directly discourage consumption by raising the prices of goods. This approach, however, imposes a system of rationing scarce goods based upon the ability to pay high prices, and places the burden of reduced consumption upon those individuals whose incomes do not rise significantly. It is quite evidently more just to drain off excessive consumer purchasing power by income taxation, and to guarantee fair distribution of scarce goods by a non-fiscal system of rationing. The sumptuary argument for consumption taxes generally errs in assuming that all individuals participate equally in a rise in consumer incomes.

5. *Immediate Revenues* One of the more popular arguments for the sales tax points to its ability to produce revenue in a very short time after enactment. This is generally a very desirable characteristic of a tax. Payment of an annual tax in small amounts through the year is generally less burdensome upon the taxpayer. And as we have seen, counter-cycle tax policy clearly implies the use of taxes whose effects are immediately felt. When it is realized, however, that the issue is generally between sales taxes and income taxes, this advantage for the sales tax is seen to have disappeared with successful employment of the current tax payments provision in the federal income tax.

6. *Tax-consciousness* It is of course desirable that the taxpayer in a democratic society be aware of his contribution to the revenues of government. Income and property taxes accomplish tax-consciousness to a high degree. The argument is thus primarily defensive in nature when used in support of the sales tax. It is probable that a retail sales tax, as usually employed by the states, is productive of as much tax-consciousness as are income and property taxes, and all are preferable in this regard to selective excises.[39]

COMPENSATORY POSSIBILITIES IN THE SALES TAX

Unintended Economic Effects The combined federal, state, and local tax system in the United States has not resulted from

[39] On the other hand, if a sales tax is collected at the production or wholesale level it almost inevitably becomes one of the "hidden taxes," producing relatively little tax-consciousness.

any coordinated attempt to frame a complete system based upon a single theory of the proper allocation of tax burdens. Rather it has grown in an opportunist manner largely driven by the desire to raise additional revenue. Its over-all economic effects may therefore be characterized as unintended. The principal items in the system are the federal income tax, the local property tax, and the federal and state excises and sales taxes. The federal income tax, whose incidence is generally upon those upon whom it is levied, is markedly progressive in rates. The incidence of property taxes is highly diffused; a considerable amount of backward shifting (capitalization) occurs, while the remainder not shifted backward may be shifted forward when property is used for business purposes, though this is not the case when property is used for consumption. The incidence of sales taxes and excises is principally upon consumers of taxed products; such taxes are thus generally regressive in effect, owing to the fact that expenditure for taxed items consumes a larger portion of low than of high incomes.

Table 33 below indicates the relative importance of the three types of tax mentioned above for selected years to 1938.

TABLE 33 Combined Federal, State, Local Tax Revenues [40]
($ millions)

CLASS OF TAX	1902	1913	1930	1938
Property Taxes	$ 707	$1,440	$ 4,959	$ 4,745
Income, Inheritance, Gift, Corporation Taxes	29	77	2,866	4,107
Consumption Taxes [a]	651	859	2,600	4,478
Payroll Taxes				1,502
Total Taxes	$1,387	$2,376	$10,425	$14,832

[a] Includes motor vehicle licenses, specific excises, customs and sales taxes.

The degree of progression or regression in the whole tax system cannot be seen from the figures in Table 33. We see that all of the three general categories of taxes contributed approximately equal amounts in 1938, though these figures must be combined with

[40] Reproduced from p. 129 of *Fiscal Policy and Business Cycles,* by Alvin H. Hansen, by permission of W. W. Norton and Co., Inc. Copyright, 1941 by the publishers.

figures of income distribution before they can indicate comparative burdens upon income classes. The rapid growth in recent years of income and consumption tax revenues is, however, significant to our study.

Table 34 presents statistical information somewhat more to the point of our present analysis.

TABLE 34 Taxes and Savings as per cent of Income per Consumer Unit, 1938–39 [41]

	AVERAGE INCOME PER CONSUMER UNIT (*Income Class*)	SAVINGS AS PERCENT OF INCOME	TAXES AS PERCENT OF INCOME[a]
	$ 346	—21.4	22.0
	847	1.6	17.9
	1,381	5.2	17.2
	1,929	5.8	17.6
	2,689	9.6	17.0
	4,121	17.0	16.3
	7,749	29.4	15.1
	13,000	35.8	17.8
	20,333	36.9	22.0
	51,259	42.2	31.3
Total	$ 1,705	11.7	11.7

[a] Does not include corporate income taxes. Inclusion of such taxes (obviously desirable for a complete picture) would raise somewhat the percentage of income paid in taxes by those at the higher income levels. Colm estimates that the percentage for the top income class would be 37.8 instead of 31.3 if corporate income taxes were included.

The most significant facts to be observed in Table 34 are the regression of the tax system as it affects the lowest incomes, rough proportionality of tax burdens among the middle incomes, and mild progression applied to the highest incomes. A tax system which applies an over-all rate of one-fifth to the smallest incomes and one-third to the highest can hardly be characterized as a steeply progressive system. The implications of these facts are clear. The tax system was not, just prior to the recent war, based upon the principle of ability to pay. It bore extremely heavily upon consumption,

[41] From Gerhard Colm, *Who Pays the Taxes?* Temporary National Economic Committee Monograph No. 3, 1941, p. 30.

principally through the excise and sales taxes. In the case of the lowest income class appearing in the table, taxes paid were almost identical in amount with negative savings. This implies that consumption was cut to minimal limits, and that taxes were paid out of previous savings, borrowed funds, or gifts. In any case, the long-run effect is to depress the level of consumption in the lower classes. It is quite obvious that a rise in the level of consumption—imperative for the long-run stability of employment at a high level—can be accomplished only over major tax obstructions unless the impact of the tax system is given major adjustment. The particular offenders in this respect are state and local governments; although the federal government does collect heavy commodity tax revenues, its excise list is heavily weighted with semi-luxury items.

Commodity Taxes as Intentional Compensatory Instruments As a matter of long-run policy to encourage a high level of income and employment, the effect of commodity taxes is strongly deterrent. There are only very limited cyclical situations in which they may be used without injury. Professor Hansen claims that they may be properly employed to apply brakes to consumption during boom periods when productive resources are fully utilized and further consumption pressure can only induce inflation. This position appears more attractive at first glance than upon closer analysis. The alternative to commodity taxes is adjustment in personal income taxes, and their relative merits for counter-boom purposes will depend upon several factors.[42]

Professor Shoup claims for the sales tax the following particular advantages over the income tax in preventing inflation during a boom. In the first place the sales tax is likely to encourage overtime work somewhat more than is the income tax. The advantage here is that some elasticity in the labor supply is provided, and absolutely full employment is reached only at a later time. The reasons why an income tax may be somewhat more discouraging of overtime work is that the individual may avoid a part of the tax by reducing or failing to increase consumption, while he is certain that an in-

[42] This question has been analyzed in great detail by Carl Shoup, *Taxing to Prevent Inflation*, New York, Columbia, 1943, p. 92 ff. Much of what follows is taken from Shoup's study.

crease in weekly pay will involve withholding of a larger income tax. Actually it is doubtful that either a sales tax or an income tax will seriously deter the worker from accepting a reasonable amount of overtime work. In the second place Shoup concludes that a sales tax is less likely to induce laxity in management during a boom period than is an income tax. The point here is that with managerial wages and profits high in a boom period, additional effort to procure higher income will mean higher rates of personal income tax, and after a point the added income after high taxes does not warrant the added effort required. Finally, the sales tax allows for regional variations in the cost of living, whereas the income tax does not. Thus, the sales tax tends to raise the cost of consumption by approximately the amount of the tax,[43] and regional differences are maintained. On the other hand, income tax exemptions are fixed for the nation as a whole, without adjustments to differences in the cost of living. In so far as this advantage of the sales tax exists, it is applicable to any phase of the business cycle.[44]

By comparison with the income tax, the sales tax is inferior to the income tax for a number of reasons. First, it is hardly desirable to discard the principle of ability to pay even in a boom period. Not all consumer incomes share equally in the boom; many incomes remain fixed over long periods. This being the case, the ability of the income tax to exempt completely a minimum standard-of-living income is decidedly in its favor. And the possibilities in the income tax for the practice of progression establish a clear preference for it in any phase of the business cycle. For no policy of compensatory taxation can logically attempt to combat booms by imposition of severe burdens upon those of low and fixed income. It postulates that the upward pressure upon prices arises uniformly from all income classes, which is far from true. Quite obviously the pressure arises from demand on the part of those individuals who are anxious to increase purchases by the expenditure of income in excess of that required to maintain their standard of living. Heavy taxation of

[43] In a boom period it is generally possible to shift a larger part of a consumption tax forward, as demand is high and rising.

[44] Shoup lists other potential advantages of the sales tax. They are ignored here because to the writer they appear of very minor significance among a list of advantages which altogether present a weak case for this type of tax measure.

income in excess of that required to provide an accepted standard of living is far preferable to taxing all dollars of expenditure equally.

There is a further set of considerations concerning the type of tax most useful to combat inflation. Certainly the cost of living has come to represent an important datum in the field of wage bargaining. The boom period is that in which organized labor is particularly successful in realizing its demands. It is quite generally agreed that the power to extract higher wages when the cost of living justifies them is greater than the power to exact higher wages to offset increased income taxes. Since this is the case, commodity taxes are more likely, by increasing the cost of living, to bring about higher wages and thus to encourage a more rapid upward movement in prices. Comparable to the situation in the wage field is that in the field of agricultural prices. The "parity formula" has become generally accepted in the American economy, justifying a rise in agricultural prices when other prices rise. It is almost inevitable, therefore, that unless agricultural conditions and policies revert to those prior to 1933, a tax increase in prices generally would encourage further rise in farm products. If this is a reasonable expectation then the sales tax would become a far more potent instrument for promotion of inflation in agricultural products (and thus increase the cost of living and the cost of many industrial raw materials) than would the income tax. Commodity taxes are thus inflationary in boom periods, both because they are immediately added to prices, and also because they carry the seeds of further cost and price increases. This characteristic, combined with the fact that consumption taxes ignore the principle of ability to pay, establishes a strong case for preference of the income tax as the effective fiscal instrument for combating inflation. The merits of sales taxes exist in the area of pure revenue considerations—in their ability to produce large and relatively stable revenues. But these revenue considerations are frequently in fundamental conflict with compensatory objectives. What are required for compensatory use are revenues which rise and fall in a controlled manner, which create strong impact when the brakes are to be applied and can be markedly lightened when encouragements to consumption and investment are in order. The sales tax possesses fewer of these elastic

qualities than do specific excises, but both are distinctly inferior to the income tax in this respect.

RECOMMENDED READINGS

Hansen, A. H., and Perloff, H. S., *State and Local Finance in the National Economy*, N. Y., Norton, 1944, Chapter 3.

Excellent general treatment of the regressive effects of state and local tax systems, with special reference to sales and business taxes.

Wald, H. P., "A Comparative Analysis of Three Variations of Retail Sales Taxes," *American Economic Review*, June, 1944, p. 280 ff.

This article should prove very useful in defining objectives and in analyzing the effects of particular sales tax provisions. It will induce acquaintance with various types of sales taxation.

Haig, R. M., and Shoup, C., *The Sales Tax in the American States*, N. Y., Columbia, 1934

Though not a recent study, this book is currently pertinent. Chapters 1 ("The Sales Tax Movement in 1929–33"), 2 ("Reaction of Taxpayers to the Sales Tax"), and 4 ("Evaluation of the Sales Tax as a State Fiscal Measure") are particularly recommended for reading in elaboration of the text chapter.

Hall, J. K., "Excise Tax Incidence and the Postwar Economy," *American Economic Review Supplement*, March, 1942, p. 83 ff.

A discussion of incidence and of effects in terms of both prevention of wartime inflation and long-run postwar needs.

Criz, Maurice, *The Use Tax*, Chicago, Public Administration Service, 1941.

A short, thorough description and analysis of the use tax.

CHAPTER 21

DEATH AND GIFT TAXES

Death taxes are imposed upon the occasion of transfer of property at death. Under a system of private property it is almost inevitable that the individual possess some right to determine how his property shall be distributed upon his death.[1] In a primitive or thoroughly communized society, where property ownership resides in the group or society, the death of a member would involve no transfer of property ownership, since during his lifetime he was only using property of the society. The institution of private property, on the other hand, implies private right to the use and to the distribution of property, both during life and at death of the owner. However, the right to property is not a natural right; it is a creature of the social and legal system, and thus is legally established by common consent. There may be, and frequently are, established legal limitations to the rights of bequest and inheritance. A system of primogeniture may exist within a society in which property is regarded as individual; the system clearly limits the rights of bequest and inheritance. In many modern states the right of bequest is limited by standing legal claims of widows and children to some part of the property of the deceased father. Death taxes themselves are a recognition of a legally enforceable claim of the state against private property transferred at death.

The transfer of property in an organized society must take place under the aegis of government. This is merely an extension of the governmental function of protection, and is an essential feature of the distribution of estates according to the wishes of decedents and

[1] See G. D. H. Cole, "Inheritance," *Encyclopaedia of the Social Sciences.*

the existing laws of inheritance. It is upon the occasion of distribution that government presents its tax claims. Two types of death taxes are in use. One is the *estate tax,* imposed upon the estate before distribution to lawful heirs. The other is the *inheritance* or *succession tax,* using as its base the distributive share to the individual heir. Much controversy has raged over the relative merits of the two types. We shall have occasion to take note of the issues in this controversy as we discuss the theory of the death tax.

THEORIES OF DEATH TAXATION

Death taxes are among the oldest of tax measures.[2] During their long history they have not wanted for theoretical justification. Indeed, almost every conceivable tax justification has been used at one time or another.

1. *Benefit* The benefit theory as applied to death taxation calls attention to the service which government performs in guaranteeing the distribution of estates to lawful heirs according to the wishes of the decedent. And when no will exists government arranges for distribution of the estate according to society's wishes as expressed in the statutory provisions governing such circumstances. According to this theory, the tax is a payment to government for performance of this service. The benefit theory, however, hardly recommends itself beyond the justification of a probate fee. In modern times, when death taxes typically are imposed in addition to collection of probate fees, and are generally progressive in rates, the benefit principle falls far short of representing an adequate theoretical base for the tax.

It has frequently been asserted that since the laws of inheritance are state laws, and since the orderly distribution of estates at death is a function of an agency of state government, death taxes are "naturally" state taxes. By this reasoning, federal taxation of estates or inheritances is regarded as an invasion of a revenue field which belongs to the states. This can be regarded as acceptable only to the extent that the tax is based upon the benefit principle, and the inadequacy of the benefit principle as a justification for modern

[2] See William J. Shultz, "Inheritance Taxation," *Encyclopaedia of the Social Sciences,* for a brief history of these taxes.

death taxes implies similar inconclusiveness of the argument that the tax belongs to the states.

2. *State Partnership* A theory of minor importance advanced in justification of death taxes is that which claims that government is inevitably a passive and silent partner in the creation of all value.[3] This being the case, government is rightfully a major claimant in the distribution of estates, on grounds that what actually belongs to government cannot logically be given away by the decedent. Such a theory can hardly be tenable as justification for modern death taxation. If acceptable, it is equally applicable to income taxation, and if used to justify income taxation it cannot logically be used again in justification of a death tax. Furthermore, modern practice of exempting minimum estates and inheritances from taxation and application of progressive rates to those taxed do not appear to reflect the partnership principle. If government is a partner in the creation of wealth and property rights, it contributes to the creation of small as well as large estates. And it is unclear how the partnership theory can account for the taking by government of a larger portion of a large than of a small estate, or how it justifies sharing by the governmental "partner" in gains but not in business losses.

3. *The Back-tax Theory* This theory regards the death tax as an instrument for collecting taxes due but evaded by the decedent during his lifetime.[4] It has had particular reference to the evasion of property taxes, since in the United States the death tax was an early instrument of the states and the principal state tax at that time was the property tax. Recognition of the consistently high degree of property tax evasion has added support to the theory. However, as Seligman points out, death taxes have been imposed upon all types of property making up the estate or inheritance, whereas there has been relatively little evasion of the real property tax. Logically, therefore, if the death tax represents a final accounting for unpaid property taxes it should be limited almost exclusively

[3] Andrew Carnegie is reported to have said, "The American republic is the partner in every enterprise where money is made honorably." (E. R. A. Seligman, *Essays in Taxation*, 8th ed., New York, Macmillan, 1913, p. 129 n.

[4] *Cf.* Seligman, op. cit., p. 135.

to personal property. It is, of course, absurd to assume that large estates can be accumulated only through evasion of property (or other) taxes, and that therefore the existence of an estate is *prima facie* evidence of earlier tax evasion.[5]

4. *Ability to Pay* The generally accepted principle justifying the taxation of transfers of property at death is that of ability to pay. It asserts that the inheritance of property places assets in the hands of the receiver which create an ability to contribute to government distinct from the ability to pay other taxes. This is undoubtedly true in the majority of cases, and the establishment of a minimum inheritance exempt from taxes can provide for those cases of need. With respect to inheritance, ability to pay taxes per dollar received progresses in two directions. Other things equal, the larger the inheritance the greater the capacity to pay per dollar, as the sacrifice involved in giving up a given portion of the marginal dollar inherited decreases as the number of dollars received increases. In addition, the capacity to pay taxes from an inheritance varies with the extent to which the heir has depended upon its receipt. Pure windfall inheritances of a given amount possess very high capacity to pay per dollar received compared to inheritances of the same size received by dependent widows and children.

The ability principle thus points to progression of death tax rates in two directions: with increase in the size of the estate or inheritance, and with greater distance in relationship between the testator and the heir. With respect to the latter, many states classify heirs into at least three classes. Class A or "direct" heirs include spouse, children, parents, grandparents, and grandchildren, and enjoy high exemption and relatively low (though progressive) rates. Class B or "collateral" heirs include brothers, sisters, cousins, uncles, aunts, and children-in-law; both lower exemptions and higher (pro-

[5] There are in existence special taxes imposed at death whose function is that of collecting previously evaded taxes. An example is the Connecticut "Estate Penalty Tax," which requires probate judges to report the items of property in estates which have paid local property taxes during the last taxing period. A special penalty tax is imposed upon those items upon which a property tax was due but unpaid. Such a special tax is to be regarded as a measure to improve enforcement of the property tax, and not as a tax on the transfer of estates at death.

gressive) rates are applied to this class. The highest (progressive) rates and lowest exemptions are applied to Class C heirs or "strangers," which category includes all heirs not related by blood. It is, of course, possible to create a larger or smaller number of classes and to vary the definitions of the typical classes indicated above. The classification, however, results from the economic fact of greater ability to pay per dollar of inheritance by those who are not normally dependent upon the inheritance as a substitute for income.

It is the desire to tailor the tax to ability to pay which has led to quite general enthusiasm for the inheritance tax as opposed to the estate tax. The latter is much more simple to administer, since it involves none of the complications such as life interests and contingent estates. The valuation for tax purposes of such special or deferred inheritances creates difficult problems of administration, frequently withholding inheritances from lawful heirs for long periods of time while the administrative machinery is in operation. Supporters of the inheritance tax believe this a small price to pay for a tax measure which lends itself to far greater precision in adjustment to ability to pay. It is true that two estates do not possess the same capacity to pay when one is granted wholly to a single heir while the other is divided among several. For ability to pay relates to the heirs and not to the estate, and to apply progression to the estate before division is at best but a rough and ready application of the ability principle. An estate tax thus ignores the important datum of ability of the heirs to pay taxes, both as to size of inheritance and as to relationship to the decedent.

On the other hand, a realistic view of how the inheritance tax operates raises several questions concerning the actual conformance of its burdens to ability of individual heirs to pay. In the majority of cases there is no practical difference in the effects of the two tax measures, for most commonly estates are passed directly to the surviving spouse. Under such circumstances an inheritance tax is in effect an estate tax. When estates are divided into shares and distributed among several heirs, it is supposedly the merit of the inheritance tax that it can impose upon each heir a tax which

measures his peculiar ability.[6] Unfortunately, however, the testator may by his own choice (or lack of it) defeat the laudable purposes of the inheritance tax. Although it is true that inheritance taxes are generally paid out of each distributive share [7] the testator generally has full knowledge of the impact of such taxes upon the various heirs, and can adjust his contributions to take account of them.

For example, suppose a testator expects to have a net estate (after payment of debts and expenses, but not taxes) of $50,000, and that the inheritance tax allows an exemption of $30,000 for direct heirs and none for "strangers." [8] He wishes to leave the bulk of his estate to his widow (his only direct heir) but would like to leave something to his secretary and to the widow of his former business partner. Let us suppose that if there were no tax he would choose to leave $40,000 to his wife and $5000 each to the two "strangers." But on investigation of the inheritance tax law he finds that under such a distribution his widow would pay taxes of $200 (2 per cent on the excess above the exempt minimum), leaving her $39,800. Each of the others, however, would pay 10 per cent without exemption, or $500, leaving $4500. Confronted with this situation, it is conceivable that he will provide $5555 to each of the "strangers," so as to give each $5000 after taxes. The consequence of this is a reduction in his bequest to his widow to just under $39,000. Obviously, some violence has been done to the notion that the inheritance tax can measure accurately the ability to pay of each heir. The effect of the differential rates and exemptions has been to throw the whole burden of the tax upon the widow. The "stranger" has after tax the amount he would have had if there were no tax, while the widow—whose ability to pay per dollar of inheritance is regarded as considerably less—has borne the whole burden. The point to be made, however, is only

[6] This means his peculiar ability only with respect to his inheritance, and not with respect to his over-all asset position. It is hardly conceivable that any death tax not completely integrated with an income tax could measure the whole ability to pay of the individual.

[7] *Cf.* T. W. Chrystie, "Division of Death Taxes Among Beneficiaries," *Proceedings, National Tax Association,* 1939, p. 411.

[8] These exemptions are approximately those effective under the Michigan inheritance tax law operative in 1946.

illustrated by this example; it does not depend upon the figures and actions assumed. The point is that, when we say the inheritance tax implements the ability to pay principle more precisely than does the estate tax, we assume no power of voluntary vitiation or qualification by the testator. That this assumption is unreal would be attested by those whose profession brings them into the confidence of testators.[9] We find, therefore, that the supposed economic merit of the inheritance tax is or can be very largely imaginary.

Though death taxes are frequently quite imperfect in precise implementation of the principle of ability to pay, it is nevertheless true that the ability principle constitutes the major modern theoretical justification of them. By any measure, ability to pay taxes does arise out of the institution of inheritance. This personal ability is quite distinct from that arising out of the receipt of recurrent income, and justifies the separate employment of the principle as the theoretical basis for both taxes.

5. *Redistribution of Wealth* Death taxes are imposed at the time of transfer of property at death; the tax base is the property itself, and the rates applied are frequently high enough to take considerably more than the current income from the estate. Clearly, therefore, the death tax is intended to be a tax on wealth. A long-standing and widespread criticism of the private property economy is that concerning its propensity to create highly unequal incomes and highly unequal distribution of economic power. It is generally agreed that the development of an industrial economy requires the accumulation of large quantities of capital, and that this capital is formed primarily from the savings of those larger income

[9] It is not meant to imply that this qualification entirely vitiates the supposed advantages of the inheritance tax, nor that for the reasons indicated above the estate tax is better tailored to ability to pay. Experience seems to show that practical factors very frequently shift the whole burden of the estate tax on to those least able to bear it, although it is generally assumed that all heirs share proportionally in the estate tax. Chrystie (*ibid.*) finds that in general ". . . Estate taxes, whether federal or state, which are imposed upon the entire net estate as one unit, are to be paid out of the residuary estate." Since in practice specific grants are generally given to collateral heirs and strangers, while direct heirs are made residuary legatees, the tax sacrifice does not fall proportionally upon all heirs but most heavily upon those to whom the sacrifice per dollar is greatest.

receivers whose propensity to consume is relatively low. On the other hand, the consequences in terms of welfare of highly unequal incomes are so serious as to raise questions in the minds of many as to whether a system which produces so much inequality can justify its continued existence without the introduction of measures to mitigate its evils. The radical point of view would favor major or complete elimination of the private property system. The reactionary point of view insists that with all its inequalities the situation of even those least favored by the system is better than it would be under any alternative system. The liberal, middle point of view in general favors the retention of the basic outlines of the private property system, but would introduce measures to mitigate the serious consequences of maldistribution of wealth and income.

Traditionally the objection to wide inequality has been based upon a concern for the welfare of those least favored by the system. As such, it is based upon moral and ethical considerations, and in its less radical forms has advocated such mitigating measures as shorter working hours, minimum wages, social security, relief expenditures, usury laws, excess profits taxes, progressive income taxes, and progressive taxes upon property transferred at death. More recently, however, with the development of the income analysis of business cycles and secular stagnation, wide inequality is condemned on purely economic grounds. The newer analysis has emphasized the causative relation between the level of consumption and the level of national income. Poverty, therefore, is not only socially significant because of the low standard of living it creates; it is economically significant as an obstacle to economic progress. The importance of a high level of consumption in generating a high level of investment, income, and consumption argues strongly for a system of distribution in which the masses possess sufficient income to maintain high consumption. Granting the necessity of saving to finance a rapidly expanding economy, and granting that such saving comes largely from large incomes, the rate of expansion cannot be maintained unless consumption is to continue increasing. When consumption ceases to increase the savings of the large income receivers turn to hoards, and stagnation sets in.[10]

[10] The influences which promote progress in a rapidly expanding economy in

Inheritance is but one among many factors contributing to inequality in the ownership of wealth. And of course inequality in the ownership of wealth is but one factor in the inequality of incomes. Nevertheless inheritance is sufficiently important to have generated a considerable amount of radical and liberal agitation for its elimination or qualification. Progressive taxation of estates and inheritances has been persistently motivated by the desire to mitigate the recognized evils of inheritance in its purest form. It would be improper to assume, however, that death taxes are designed to make private inheritance impossible. The federal tax on estates has carried fairly high and progressive rates, but has allowed generous exemptions. The state taxes have generally granted lower exemptions, but have applied low rates. Obviously a death tax system which appropriated substantially all of every estate to government would, in the majority of applications, create real hardship. For in the majority of cases estates transferred simply serve to maintain consumption for remaining family members at or below the former level.

The objectives of redistribution of wealth and of taxation according to ability to pay, both of which lie behind death taxation, are not in any important way in conflict with one another. In individual cases they may conflict, but those cases are relatively few and indicate the conflict which at times arises from the application of a tax measure uniformly to all members of a society whose members are in different circumstances. In general, however, it cannot be controverted that the greater the inheritance, the greater the capacity to pay taxes from that inheritance. And the application of a uniform set of progressive rates upon inheritances will meet the broad demands of the ability principle and at the same time mitigate some of the results of highly unequal ownership of wealth.

It is convenient at this point to analyze the observation not infrequently expressed that death taxes, since they are imposed upon

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spite of serious inequality in incomes are principally: (1) population growth, (2) new lands, and (3) a high degree of competition accompanied by rapid technological change. When population becomes nearly stable, and new lands disappear, two major external factors in the expansion of consumption disappear. When the economy becomes non-competitive the tendency is toward restriction of production and lowering of consumption.

wealth, actually decrease the stock of wealth in the economy. The observation appears to confuse wealth itself with the ownership of wealth. It generally cites the example of a large, closely held corporation, which on the death of one of its few large owners must be "broken up" to meet death tax obligations. Ignoring whatever legal possibilities there may be for avoiding death taxes or avoiding the sale of stock to meet tax claims, let us assume that a portion of the estate (in shares of stock in the corporation) of the decedent must be turned into cash to pay the taxes. If these shares are sold to others among the small shareholding group, obviously no destruction of capital occurs and no dissipation of ownership occurs, although the decedent's heirs hold a smaller share of ownership than did the decedent. But more likely, if the corporation is large and closely held, stock must be sold on the market to meet tax obligations. Here again, though the number of owners of the corporation is increased, no destruction of capital has occurred. And even if the shares must be sold at a low price, no destruction of capital in the real sense has resulted, though the size of the inheritance after taxes has been reduced. Savings of outsiders have replaced savings of the decedent in the corporation, and government has taken that portion of the decedent's savings replaced. It would clearly be impossible to generalize upon the long-run effects of such dispersion of ownership.

Another observation has been made concerning death taxes, that high death taxes tend to dry up the stream of death tax revenue by discouraging the accumulation of taxable estates. This is undoubtedly true to a degree. The investment of assets in tax-exempt government bonds to reduce death taxes is a commonplace, particularly when taxed investments show little differential in return. Purchase of (partially) tax-exempt insurance offers a similar possibility. And there are various legal preparations which may be made to avoid death taxes, their types and their effectiveness depending upon existing law in different localities. Establishment of residence in low-tax states is sometimes possible; in community property states the amount of the estate actually transferred at death may be less because of the legal presumption that each spouse was owner of one-half of the assets before death; in some states the legal intricacies of

joint tenancy will reduce death taxes by eliminating transfer of ownership at death; estates may be largely given away before death and thus avoid some taxation. Without question—ignoring the possibility of secular increase in number and size of asset accumulations in the society, and changes in the tax laws—death taxes heavy enough to encourage tax avoidance will reduce death tax revenues.

Should we expect high death taxes to discourage saving? It is impossible to answer the question inductively by reference to observed facts. Nevertheless the question is of some importance and when answered in the affirmative has been employed as an argument against the death tax. Death taxation is but one—and a minor one—of the influences upon the amount of saving. It would appear doubtful that individuals determine their choices to save or not to save during life in terms of estate or inheritance taxes. Small savings and even savings of medium size have hardly been touched by these taxes, while it is almost certain that the comfort and economic power which go with substantial assets during life are far stronger motives for accumulation than is the privilege of making large bequests at death. If this is true, death taxes would be minor deterrents to saving. And it may be observed that in the last quarter-century the American economy has suffered far less from under-saving than from over-saving.

INCIDENCE OF DEATH TAXES [11]

The popular but much over-simplified theory of incidence of the death tax places the whole incidence upon the successor or inheritor of the estate. It reasons that since the tax is assessed and collected subsequent to the death of the creator of the estate, and dead men cannot bear tax burdens, the decedent must be free of all incidence. Since there is no vehicle for tax shifting beyond the successor, the total incidence is upon him. Certain easily observable facts seem to support this analysis. The net estate is available for distribution according to will among designated heirs. Were no tax collected, the sum of the shares distributed would be larger by the

[11] See James K. Hall, "Incidence of Death Duties," *American Economic Review*, March, 1940, p. 46, for an excellent short discussion of comparative theories of the incidence of these taxes.

amount of the tax. Therefore the heirs—or at least some of them—have contributed the tax from their shares.

This theory would be wholly acceptable were it possible to assume that those who create estates during their lifetime either (1) take no thought of death taxes, or (2) consistently during life save what they can for the purpose of estate-building.

In many instances these assumptions harmonize with the facts. They imply that the prospect of death taxes has no effect upon estate-building. There are probably those who are quite ignorant of the existence of such taxes, and set an estate goal—usually by purchase of life insurance—which is regarded as adequate. And there are others who during life are so conscious of their obligation to dependents that they follow a consistent program of self-denial for the purpose of maximum estate-building. Many such persons truly "save all they can," and the weight of taxation, though deplored, does not affect the size of the estate before taxes. In such circumstances the tax has but one effect—the size of the net estate being given, the tax is but a deduction from the shares of the heirs, and the incidence is upon them.[12]

In many other cases, the program of estate-building is conditioned by anticipation of the death tax. Whenever the objective in estate-building is the creation of assets of a given amount *after taxes*, it is to be presumed that the rate of saving during the testator's lifetime was greater than it would have been without the tax. He has not only laid up an estate after taxes for his heirs, but he has also set up a fund for tax payment. The additional self-denial required to meet the tax represents the burden of the tax. How burdensome this incidence is depends upon the intensity of the sacrifice involved in additional saving. But the incidence in this case is clearly upon the decedent. The assumption that dead men cannot bear tax

[12] Some would insist that there can be no burden upon heirs, since inheritances are purely fortuitous—a net windfall gain. (*Cf.* Hall, *ibid.*, p. 58.) However, "incidence" does not necessarily mean "burden": it answers the question, "Who actually has contributed the tax?" The tax may conceivably be contributed without an attendant burden in the case of an heir whose inheritance is entirely of a windfall nature. What he gets is net gain, because he expected nothing. On the other hand, the incidence represents negative benefit in the sense that he would have had greater windfall gain without it.

burdens is not strictly true. As dead men, of course, they experience no burdens. But the burden (incidence) can be borne prior to the date on which the tax is assessed. We conclude, therefore, that the incidence of death taxes may be upon the predecessor or upon the successor, or upon both. When anticipation of the tax has led to more rapid estate-building by the predecessor than otherwise would have occurred, to that extent the incidence is upon him. If the estate under the tax is what it would have been without the tax, the incidence is upon the successor. When the predecessor anticipates the tax but is able only partially to provide for it, the incidence is divided between predecessor and successor. Incidence is therefore largely a matter of personal choice of the testator. He may bear the incidence if he chooses (and is able by greater saving or greater industry) to do so, or he may place it upon his successors. As to what generally occurs it is foolhardy to guess and well-nigh impossible to determine by investigation.[13]

RECENT HISTORY OF DEATH TAXATION

The modern era of death taxation in the United States began at about the beginning of the present century for state governments, while modern federal use began during the First World War. Several states had employed rudimentary measures of this type during the nineteenth century, but it was not until the Wisconsin law in 1903 that the tax first included all heirs, all types of property, and progressive rates. Federal employment of death taxation occurred sporadically during the nineteenth century, principally during war revenue emergencies. Until 1924 death taxes were generally regarded as the peculiar property of the states. Previous to that date

[13] At a more detailed level it is evident in experience that incidence may be determined by purely legal factors. Suppose that the incidence is upon the successors—that the estate would have been larger had there been no tax. Suppose further that the tax is an estate tax, paid from the estate before distribution. Generally speaking, state inheritance laws require that designated amounts willed to designated heirs remain intact without tax deduction. The residual heir(s) then bears the incidence, while those granted designated amounts bear none. Laws of the states vary in this regard; although most follow the pattern described above, some make special provision for prorating the tax or especially favor close lineal heirs (who are generally residual heirs).

the federal taxes had been promptly repealed with the passing of the emergency. In 1924, however, the debate over repeal of the federal wartime death tax terminated in legislation designed largely to eliminate duplication of federal and state burdens upon estates and inheritances. This plan not only laid the foundation for a permanent federal tax, but greatly accelerated the movement toward uniform death taxation among the states.

The Federal Credit for State Death Taxes Paid In 1916 the federal government levied an estate tax whose rates, though moderate by contrast with the present law, were considerably higher than those formerly applied by federal death taxes.[14] The maximum rate in the progressive schedule in 1916 was 10 per cent on the net estate; the rate schedule was increased to a maximum of 25 per cent in 1917. The imposition of a fairly heavy federal tax on estates, in addition to existing state inheritance taxes, imposed new and relatively severe burdens upon transfer of property at death. During the war this duplication was not regarded as onerous, but with the end of the war fundamental decision was required upon the problem of duplication of death taxes. State tax rates were low; in fact there was a good deal of competition among states to establish death tax advantage for their residents. Competition for wealthy residents was keen, on the principle that low death taxes would encourage establishment of residence, and annual property tax and other revenues would be thereby increased.[15]

Subsequent to the war Secretary Mellon actively urged repeal of the wartime federal estate tax, and return of this revenue source to the states. The states strongly supported this solution of the problem. However, the legislation of 1924, far from eliminating the federal tax, increased its rates to a maximum of 40 per cent. At the same time, estates subject to federal tax were allowed a credit for state death taxes paid, up to 25 per cent of the federal tax. In 1926 this

[14] Previous federal experience was confined to taxes on inheritances. A stamp tax on legacies at 2/10 of 1% was levied between 1797 and 1802; a very moderate inheritance tax producing only 1½ million dollars per year was employed between 1862 and 1870; and the tax of 1898–1902 was levied at a maximum rate of 2½% on the inheritances of direct heirs.

[15] States with death taxes frequently countered with the claim that collection of death taxes made annual property and other taxes lower.

credit was increased to 80 per cent of the federal tax. The problem of double federal and state burdens was solved, since no state then taxed to the extent of the 80 per cent federal credit.

The intent of the federal credit provision went well beyond the desire to eliminate the double burden, however. It was frankly designed to bring the states into line in death tax practice. It represented a conscious federal attempt to establish the death tax as a uniform nation-wide fiscal instrument and to put an end to death tax competition among states.[16] It was extremely effective, for the credit provision made very difficult state refusal to pass the necessary legislation to take for its own treasury revenue which would otherwise go to the federal government.

Forty-seven states now have some form of death tax.[17] While the simpler method of taking advantage of the federal credit would be for the states to adopt estate tax laws at rates 80 per cent of the 1926 federal rates, and with the same exemptions and graduation scale, very few have done so. In 1946 only six states had such laws. However, the popular state method of adjusting to the federal credit has been to tack on to the inheritance tax an estate tax which absorbs the difference between the inheritance tax and the federal credit. Thirty-three states and the District of Columbia employ such additional estate taxes.[18] The remaining states appear only more or less concerned with taxing only to the extent of the federal credit and eliminating duplication of death taxes.

By and large during the late twenties the states were quite content with this experiment in federal-state sharing of revenues. But in 1932, under pressure for increased revenue, the federal government superimposed an "Additional Estate Tax" upon the 1926 Act. The new law greatly increased the rates on estates and provided no credit against the Additional Estate Tax for state taxes paid, though the 80 per cent credit against the 1926 tax was (is) retained. During

[16] Florida in 1924 adopted an amendment to its constitution prohibiting inheritance taxation in that state. With the adoption of the federal credit this state unsuccessfully challenged its constitutionality before the Supreme Court. Finally, in 1930, the Florida constitution was again amended to permit death taxation, but only to the extent and for the duration of the federal credit.

[17] Nevada alone has no such tax (1947).

[18] *Tax Systems,* 10th ed., 1946, pp. 250–60.

the debates on the 1932 law it was suggested that the old (1926) tax be repealed and a new, heavier, and more steeply progressive tax be installed, with a credit of 16⅔ per cent against the new tax for state death taxes paid. This suggestion was not accepted, however, and the Additional Estate Tax was added to the 1926 estate tax.

The present (1947) federal estate tax thus is a combination of two estate taxes. It is computed by adding the tax due under the 1926 law to that due under the Additional Estate Tax. The "net estate" forms the base of both taxes, and deducts from the gross estate expenses of its administration, other non-tax claims against it, and the specific exemption granted by the tax law.[19] The specific exemption under the 1926 Act is $100,000 of gross estate; under the 1932 Act as last amended (1942) it is $60,000.[20] Having computed the net estate, the Basic Tax (1926 Act) is determined at rates progressing from 1 per cent on the first $50 thousand of net estate to 20 per cent on that part in excess of $10 million. A tentative Additional Estate Tax is then computed on the net estate base at rates progressing from 3 per cent on the first $5 thousand to 77 per cent on that amount over $10 million. The tax so calculated less the Basic Estate Tax gives the net Additional Estate Tax. And the total estate tax payable is the sum of the net Additional Estate Tax (after deduction for gift taxes paid) and the Basic Estate Tax remaining after deduction for state death taxes and federal gift taxes paid. The computation would be far less complex were there either no credit for state taxes or a fixed credit for state taxes against a single federal tax. It is the peculiarity of applying the state tax credit only to the Basic Estate Tax (1926) which creates the major complication.

The action of 1932 in leaving unchanged the participation of the states in death taxation while turning over the major share of such

[19] Additional deductions are: expenses required for support of dependents during settlement of the estate, losses arising during settlement, and items in the estate received by the decedent as bequest or gift within a period of five years prior to his death.

[20] Since the specific exemption under the majority of state inheritance taxes is $10,000 for blood relatives, it is evident that many inheritances are subject to state tax while the estates from which they come are entirely free of federal taxation.

revenues from large estates to the federal Treasury has been described as a "tactical triumph of no small importance" on the part of the federal government.[21] This description implies, justifiably, that the federal attitude toward sharing death tax revenues had changed between 1926 and 1932. To a degree it is less a change in attitude than a change in political atmosphere; it is quite possible that the only alternative to the 80 per cent credit under the 1926 Act was outright repeal of the federal tax.

The attitude of the states toward the 1932 shift is apparently one of extreme discomfort. This discomfort results because (1) the federal government is now in the controlling position with respect to disposition of a tax which was traditionally thought to belong to the states, and (2) the states are allowed only a small portion of death tax revenues currently being collected. What was described as generosity on the part of the federal government in 1926 has since 1932 been characterized as niggardliness. Though state death tax revenues did not decline as a result of the 1932 action, the position of the states changed from major to minor participation in revenues from large estates. Yet it is clear that the 1926 Act increased state death tax rates and revenues. And it is highly likely that if the federal government were to be completely generous and retire from the death tax field the states would return to a considerable amount of undercutting one another's death taxes to bid for wealthy residents.[22] The consequence could very well be lower state death tax revenues than at present. From the point of view of revenue alone, the ideal situation for the states would be a heavy federal tax with a 100 per cent credit for state taxes paid. In view of the prospects of state finances and the relative unimportance of death tax revenues to the federal government, such a procedure deserves consideration. It would, however, nakedly reveal the indirect financial power which the federal government possesses over the states.

[21] Eugene Oakes, "The Federal Offset and the American Death Tax System," *Quarterly Journal of Economics,* August, 1940, p. 573. This article is highly recommended for further reading on this subject.

[22] This tendency would probably be especially strong in view of the growth of state income taxation.

REVENUE PRODUCTIVITY OF DEATH TAXES

Table 35 shows the relative importance over time of death taxes in the whole revenue picture of federal and state governments. Variations in revenue from year to year result from variations in some or all of three factors. The first is a group of technical

TABLE 35 Death and Gift Tax Revenues and Per Cent of Total Tax Revenues from Such Taxes, Federal and State Governments, Selected Years, 1916–1945 [23]

YEAR	FEDERAL		STATE	
	Death and Gift Tax Revenues ($ millions)	*% Total Federal Tax Revenues*	*Death and Gift Tax Revenues ($ millions)*	*% Total State Tax Revenues*
1916	–––	0.0	29	8.0
1922	139	4.3	66	9.1
1927	100	3.5	106	7.8
1931	48	2.0	183	10.2
1937	316	6.8	115	3.7
1940	360	6.8	113	2.1
1944	510	1.3	114	1.7

elements inherent in the tax laws themselves, such as rates of tax, specific exemptions, and the degree to which revenues are shared between governments. The rise in state death tax revenues in 1931 (see Table 35) is due largely to heavier state taxes resulting from the federal action of 1926, while the severe decline in federal revenue from this tax reflects small federal participation in these revenues under the 80 per cent credit. The second factor is the current level at which estates and inheritances are valued for tax purposes. Both federal and state death tax revenues were lower in 1931 than they would have been under conditions of higher property values. This factor does not stand out in the figures as distinct from the other two, but it is unquestionably constantly in operation. The third factor is the purely accidental one of the number of large estates subject to tax in a particular year. Other things equal, this is likely to be a

[23] Federal figures from *Annual Report of the Secretary of the Treasury*, 1945, p. 484; state figures from various volumes of the *Statistical Abstract of the United States*.

more significant variable to individual states than to the federal government, because of broader federal coverage. The death of a very wealthy resident in a particular year may mean to a state the difference between budget surplus and deficit. On the other hand, the lower exemptions in typical state taxes provide a larger number of estates subject to tax per thousand deaths, and thus work toward stability in state death tax revenues.

The facts displayed in Table 35 indicate clearly, however, that death and gift taxes [24] are of relatively minor importance to both federal and state governments from the revenue point of view. Furthermore, it is unlikely that they could be made to occupy a significantly more important position. Some increase in rates is of course possible without severe hardship, particularly in the lower and middle brackets touched by the federal tax (*i.e.*, on gross estates between $100,000 and $500,000). But the small number of such estates would still mean relatively small revenues. It is probable that little lowering of federal exemptions or raising of state rates on smaller estates and inheritances could be justified. Such a move would produce considerable additional revenue, but would subject to tax estates and inheritances typically essential to the security of dependent persons. Under recently low rates of return on relatively secure investments the estate of less than $50,000 possesses little ability to pay death taxes.[25]

GIFT TAXES [26]

Federal and state taxes upon gifts are employed primarily to close an otherwise easily available opening for the avoidance of death taxes. Without such instruments it would be

[24] The relation of gift taxes to death taxes will be discussed in the following section.

[25] This would be typically true no matter where the incidence of the tax lies. If upon the decedent during his lifetime, accumulation of an estate of less than $50,000 probably means rather severe skimping on expenditures in the representative case, because such estate-builders are not likely to be in the high income classes. If the incidence is upon the heir, likely as he is to be dependent upon the income (and capital) of his estate, there is likewise little taxpaying ability in what is taken to be the representative case.

[26] A useful treatment of this subject is C. Lowell Harriss, *Gift Taxation in the United States,* Washington, American Council on Public Affairs, 1940.

possible by transfers before death to accomplish substantially the equivalent of tax-free inheritance. If, therefore, there is theoretical and practical justification for death taxation there is approximately identical justification for the taxation of gifts *inter vivos*. The principal difficulty in use of the gift tax to supplement the death tax has been to define workably those gifts which are made "in contemplation of death", and thus made for the purpose of death tax avoidance.

The federal Act of 1924 assumed that gifts made within a year prior to death were made in contemplation of death, and a tax was imposed upon gifts made during that year.[27] In 1926 this gift tax was repealed and a two-year presumption of "contemplation" was substituted. This presumption was, however, declared unconstitutional in 1932. In that year the separate gift tax was installed, imposing gift taxes at progressive rates approximately three-fourths as high as those of the estate tax.[28] With changes in rates and exemptions in line with changes in the estate tax, this tax is currently in operation. A peculiar aspect of the gift tax is that although it is applied annually to gifts made in that year, it applies progressive rates on a basis comparable to those of the estate tax which is paid only once on a given estate.

A specific gift tax exemption is granted each donor for the period of his life. This exemption is comparable to—though somewhat lower than—the specific exemption under the estate tax.[29] An additional exemption, peculiar to the gift tax and not applicable to the estate tax, is an annual one of $3000 to each donee. Although gifts (if large enough to be subject to tax) are taxed annually, the rate of tax applicable in any year is found by reporting a cumulative total of all gifts made since 1932 and applying the rate appropriate to the

[27] *Cf.* C. Lowell Harriss, *Proceedings of the National Tax Association,* 1938, p. 722 ff.

[28] Apparently the gift tax rates were made lower than the estate tax rates on the grounds that gift taxes are paid annually. Since they are regarded as prepayments of death taxes, the rate differential in favor of gifts represents discount for prepayment.

[29] In 1946 the estate tax specific exemption was $60 thousand, while the aggregate gift tax exemption was $30 thousand. Prior to 1942 both exemptions were $40 thousand.

bracket reached by that total. For example, suppose that gifts of $25 thousand were made in 1946, and including 1946 the taxpayer had made a cumulative total of $450 thousand in net gifts since the act became effective in 1932. The rate of gift tax on the $25 thousand of gifts made in 1946 would be 24 per cent, which is the rate on that part of the cumulative total of gifts between $250 thousand and $500 thousand. It is evident that some such cumulative plan is necessary in order to establish approximate indifference on the part of the donor as to whether he transfers his estate at death or over a period prior to death.

Clearly the gift tax of 1932 and subsequent years completely avoids the problem of segregating those gifts for taxation which are made in contemplation of death. All gifts (above exempt minima) are taxable. This implies that the gift tax has come to be not only a tool to prevent avoidance of death taxes, but also a tax in its own right, based quite properly upon the principle of ability to pay. There is no fundamental difference between gifts *inter vivos* and bequests made at death. Nevertheless, the mechanics of gift taxation, the stated intent, and the relatively high exemption carry the implication that bolstering the estate (or inheritance) [30] tax is the prime function of the gift tax. Those subject to gift tax are quite likely to be those who would otherwise make substantial gifts during life to avoid death taxation.

Since the principal function of the gift tax is to provide support for the death tax, there is little significance to the relative revenue productivity of gift taxes. As a matter of fact the federal gift tax revenues have been far smaller than the estate tax revenues.[31] No attempt is made to uncover a comparison of revenues of the two taxes among the states, as the comparison is of little importance. What is important is that without gift taxes, whatever their revenue productivity, revenues from death taxes would be lower than they

[30] In 1946 only eleven states employed gift taxes. All of these employed the inheritance tax, with an additional estate tax to absorb the federal credit. (*Tax Systems*, Chicago, Commerce Clearing House, 1946, pp. 250–60.)

[31] In 1946 federal gift tax revenues were approximately 8% of estate tax revenues. No consistent relationship, however, appears evident over a period of years.

are. Thus, the major revenue productivity of the gift tax is to be found merged in the death tax revenues.[32]

INTEGRATION OF DEATH AND GIFT TAXES

We have seen that the primary purpose of the gift tax is to complement the estate tax, by subjecting gifts *inter vivos* to taxes similar to those on property transferred at death. It would appear eminently reasonable, therefore, to consider both gifts and bequests as similar manifestations of a single process—the transfer of wealth from one person to another. From this point of view there are two inconsistencies in the modern application of these tax measures. The first inconsistency lies in the separate—and different—specific exemptions. The federal estate tax allows specific exemption from taxation of the first $60 thousand of the estate. The gift tax allows a lifetime exemption of $30 thousand plus an annual exemption of $3000 per donee. Consistency would seem to require amalgamation of these into a single exemption. Possibly the proper solution is a single, over-all exemption of $60 thousand for both estates and gifts. The additional gift tax exemption of a given amount per donee per year can hardly be justified on any grounds. Conceivably it encourages the breaking-up of large estates into widely dispersed gifts, which accomplishes a certain redistribution of wealth. But for smaller accumulations it is also conceivable that the urge to avoid taxes may result in too great dispersion for the benefit of dependents. On the whole, however, if the additional exemption per donee is logical under the gift tax it is equally logical under the estate tax. The simplest and most reasonable reform would seem to be the establishment of one general exemption to be applied to gifts and/or estates, as the donor chooses. The particular merit of such combination would be to integrate more closely the two complementary taxes.

The second inconsistency in modern practice is to be found in

[32] Why, then, do so few states have gift taxes? The explanation is to be found in the fact that in the brackets where death tax rates are high and the propensity to avoid is great, the federal gift tax is effective. Thus, the federal gift tax serves to discourage evasion by the gift route. On the other hand, *inter vivos* gifts are given some advantage over transfers at death in the absence of state gift taxes.

the separate application of progressive rate schedules to gifts and estates. If the two taxes are really one, the logical treatment would be to add *inter vivos* gifts to the estate transferred at death, and apply a single progressive schedule to this total. Gifts are now cumulated over the life of the donor. Administratively it would be simple indeed to treat the estate as the final item in a series of transfers.[33] Roughly speaking, at the present time, the wise possessor of a considerable estate would distribute approximately half by gift and half at death. In so doing he would be subject to the lowest total tax on the transfer of his wealth. Such separation does the same violence to the theory of progressive taxation as applied to death and gift taxes as do separate returns on a single family income under the personal income tax. It is indeed curious that two taxes which are really one and are generally so regarded should be treated as quite distinct taxes with respect to the application of rate schedules and exemptions. Present gift and estate tax practice may in many respects be considered comparable to the payment by a single individual of separate income taxes with separate exemptions and separate progressive rate schedules on income as wages, income as interest, income as rents and royalties, income as profits, and capital gains.

THE PROBLEM OF SITUS IN STATE DEATH TAXATION

Much hardship and confusion has resulted from the lack of uniformity in state taxation of inheritances and estates. The situs of property for inheritance tax purposes has been so variously defined by state laws as to create much duplication of taxation of the same property items. It seems to have been reasonably well established that the situs of real estate for tax purposes is its location. It is, however, movable property—particularly intangible property—which has caused the greatest difficulty with respect to multiple taxation. Suppose the decedent to have been a resident of

[33] A practical difficulty would arise because the heirs at death would frequently be left but a small amount of the specific exemption, and the estate at death would frequently be subject to higher rates than would *inter vivos* gifts. This result would occur because gifts take place prior to transfer of the estate at death. Yet the theory of death taxes points to preference for direct heirs, who in the majority of instances are the principal heirs at death.

State A. State A would probably impose its death tax upon all intangibles transferred at death, on the principle that "movables follow the owner" and have their taxable situs in the state of his residence. But suppose his estate includes securities of a corporation incorporated in State B and owning property in State C. Under some state laws both B and C would be entitled to death tax. Under the laws of some states, State D would file death tax claims against bonds held in safe keeping in that state, even though the decedent was non-resident and the corporation a foreign one.

Such multiplication of inheritance taxation of the same property does, of course, increase unnecessarily the burden of death taxation. On the whole, it is probably true that the multiple tax is less expensive and annoying than the cost and delay in clearing the estate of tax liability before the shares can be distributed. Though taxes may not actually be multiplied, the administrator of the estate must obtain waivers of possible tax claims from several states before the estate may be divided. Litigation to avoid multiple taxation is likewise expensive and time-consuming.

It is probably too much to hope that uniform state laws can ever be established. It is, however, possible that the practice of reciprocity will accomplish essentially the same result. The difficulty arises principally from taxation of the intangibles of non-residents. Under a reciprocity law State A does not tax the transfer of intangible property of decedent residents of State B if State B affords the same immunity to residents of State A. The reciprocity movement began after a few forward-looking states had repealed inheritance taxation of intangibles of non-residents only to find that other states refused to fall in line. In self-defense, therefore, they returned to their former systems.[34] A reciprocity law can be enacted, but it does not become effective with respect to another state until the latter state reciprocates. In 1939 approximately thirty states participated in the type of death tax reciprocity described here.[35] It is quite likely that the reciprocity movement can expand but little further. The reason

[34] New York and Massachusetts repealed the tax on intangibles of non-residents in 1911 and 1912, respectively. In 1919 and 1920, respectively, these taxes were restored. (F. S. Edmonds, "Progress in Reciprocity in State Inheritance Taxation," *Proceedings, National Tax Association,* 1925, p. 247).

[35] F. S. Edmonds, *Proceedings, National Tax Association,* 1939, p. 406.

is that the less populous and less wealthy states frequently derive more revenue from the estates of non-residents than from those of residents.[36]

Even if reciprocity were complete the determination of domicile of the decedent might present some problems. Such difficulties sometimes arise in the cases of persons of means who wish domicile in one state for tax reasons and residence in another for business or personal reasons.[37] Adjudication of such problems involves purely legal processes, and is outside the scope of the present study. Death tax theory is bedeviled by the fact, however, that a person may maintain the legal fiction of domicile in one state while actually residing in another. The state of legal domicile lays claim to death taxes, while the state of residence frequently possesses no such claim.

COMPENSATORY USE OF DEATH TAXES

Death and gift taxes offer practically no countercyclical, compensatory, or functional possibilities. They touch at any one time an extremely small segment of the economy and thus cannot conceivably exercise noticeable leverage over the levels of consumption or investment. They are not amenable to timely use, for they are not continuing taxes but are applied only once. Raising or

[36] "During the past year our committee has conferred with many state tax commissions, and has suggested that they join us in this reciprocity movement. In some cases, we have heard from states whose Tax Commission says, 'I would be glad to recommend reciprocity, but it happens that our state is the home state of a large corporation, most of whose stock is held by non-residents, and we get a very large income from these non-residents and it is very hard for us to give up that income. We do not know what we would do if we were obliged to give up that income.' And then there is quoted to us the stock example of the State of Utah which is the home state of the Union Pacific Railroad, and which received $780,000 by the death of Mr. E. H. Harriman, the great railroad builder, which sum was used to build the State Capitol. Visitors to this state are told, 'We built this Capitol from a non-resident's estate.'" ("Report of Committee of the National Tax Association on Reciprocity in Inheritance Taxation", *Proceedings, National Tax Association,* 1927, p. 414.)

[37] *Cf.*, for instance, the Dorrance case (New Jersey and Pennsylvania), the Trowbridge case (New York and Connecticut), the Hunt case (California and Massachusetts), and the Green case (Texas, Florida, New York, and Massachusetts). Discussion of the issues in these cases may be found in *Proceedings, National Tax Association,* 1939, pp. 423–32.

lowering of rates or exemptions through the business cycle could have essentially no effect upon the long-period saving or spending of estate-builders. And although raising rates to discourage lavish spending by the inheritors of windfall legacies might be desired at the moment, such actions would effectively reduce for all time the inheritances of those whose increased spending in some few months might be very desirable. Finally, the time elapsing between death and the final distribution of estates further negates compensatory objectives.

The death and gift taxes are highly desirable as revenue instruments. They produce some vital revenue according to genuine ability to pay. In addition, however, they perform a long-run economic service in their pressure toward redistribution of large concentrations of wealth. In so doing they assist—at least mildly—in the creation of a high-consumption economy. It is clearly desirable that these taxes be retained and improved, though they can hardly take a place among compensatory fiscal instruments.

RECOMMENDED READINGS

Oakes, E. E., "The Federal Offset and the American Death Tax System," *Quarterly Journal of Economics*, August, 1940, p. 566 ff.

Very informative paper on the history and implications of this significant example of federal-state fiscal relations.

Hall, J. K., "The Incidence of Death Duties," *American Economic Review*, March, 1940, p. 46 ff.

A useful study, particularly as a summary of theories of death tax incidence. Somewhat over-categorical in some of its conclusions.

Harriss, C. L., *Gift Taxation in the United States*, Washington, American Council on Public Affairs, 1940.

The following chapters are particularly recommended: 1 ("Why Gift Taxes"), 2 ("Gifts in Contemplation of Death"), 4 ("Structure of the Federal Gift Tax"), 8 ("State Taxation of Gifts"), 11 ("Proposals for Change").

CHAPTER 22

BUSINESS TAXES

NATURE OF BUSINESS TAXES

Taxes are frequently not what they seem. By no means all of the taxes imposed upon businesses or business transactions are technically "business taxes." We have seen, for example, that between 1913 and 1936 the federal corporate income tax was not regarded as a special business tax, but merely an agency for collection at the source of the personal income tax upon that part of personal incomes derived from corporate profits. And sales taxes are levied upon business with the intention that they be shifted to buyers of products. The states frequently employ "in lieu" taxes, *i.e.*, taxes which may be imposed upon business institutions, but in lieu of certain types of property taxes. For example, some state severance taxes are imposed upon business exploitation of forest or mineral resources, but for purposes of collecting delayed property taxes.[1] At least one state imposes a tax upon the income from investments of insurance companies; this tax is, however, not regarded as a tax upon business as such, but rather as a tax on intangible property measured by the income from intangibles. We are concerned in this chapter not with all taxes applied to business establishments, but with those intended to be paid by business as such, either for the privilege of doing business or because of presumed distinct capacity of a business establishment to contribute to government. A brief survey of business tax proposals will help to clarify this concept.

[1] *Cf.* Chapter 15.

The National Tax Association's "Model Tax Systems" [2]

The "Model Tax Systems" proposed by the National Tax Association have recommended three types of taxes upon which ideally state and local tax systems should be founded. The three types are: a tax on tangible property, a tax on personal incomes, and a tax on "business carried on for profit." It is implied that each of these major taxes possesses its own separate justification. Although the special justification of the third is stated to be "for the benefits it receives," the special nature of this justification is so hedged as to suggest serious qualification. The Committee says: [3]

> If the owners of the business are residents of the state, this principle may not be appealed to, since the ordinary methods of taxation may be considered to provide for such a case. If a considerable amount of real estate and other personal property is employed in a business conducted for the account of non-residents, again no appeal may be made to this principle, since here too the ordinary methods of taxation may be considered adequate. But if the owners are non-residents, and the business, though very profitable, employs little or no property subject to taxation in the locality, the states, to an increasing degree, demand that some method shall be devised for reaching such business enterprises.

Let us see what this means with respect to theoretical grounds for imposition of a special business tax. The general grounds for justifying it are "the benefits it (business) receives." [4] But according to the statement above, no payment need be made for these business benefits if (1) the owners are residents of the state or (2) the business owns a considerable amount of tangible property in the state. This is regarded as acceptable because the income tax is justified by the Committee as payment for "personal benefits that government confers" and the property tax pays for "protection and other governmental benefits and services." We are forced to the conclusion that

[2] "Preliminary Report of the Committee Appointed to Prepare a Plan of a Model System of State and Local Taxation," 1918, *Proceedings, National Tax Association,* 1919, p. 426 ff., and "Second Report of the Committee on a Model System of State and Local Taxation," 1933, *Proceedings, National Tax Association,* 1933.

[3] *Proceedings,* 1919, p. 430. The same statement appears in the revised report, *Proceedings,* 1933, p. 361.

[4] *Ibid.*

business benefits are not distinct from personal and property benefits, else the exceptions to application of the business tax would not have been stated. If the benefits to business are not distinct, upon what grounds can State A justify special taxation of those businesses owned by non-residents or owning tangible property outside the state? It appears that the Committee's recommendation is to impose unusual tax burdens upon interstate business; the state in which the owners have domicile will receive income taxes from them, the state(s) in which the business holds property will receive property taxes, while the states in which the concern does business (provided owners do not live there or the business owns little or no property there) will collect business taxes. This appears to carry a curious notion of benefit, for it implies that business receives special governmental benefits only when carried on by non-resident owners with non-resident property. However, our principal interest at this point is in describing the nature of a "business tax." Curious as its notion of benefit is in this case, the Committee's analysis serves to characterize the business tax as a tax imposed independently of other types of taxes and justified on grounds separate from those which recommend other tax measures.

More Recent Theories of the Business Tax The large crop of miscellaneous business taxes imposed by both federal and state governments has grown up far more as the result of the desire for revenue than of the development of an acceptable theoretical justification. Nevertheless there are modern theoretical advocates. Another committee of the National Tax Association justifies business taxes on corporations on grounds of "(1) the special benefits enjoyed by corporations through the peculiar legal privileges granted them to exist and to conduct business in the corporate form and (2) the benefits enjoyed by corporations in common with other forms of ownership organization by virtue of numerous governmental activities contributing to the establishment and maintenance of a favorable environment in which to carry on business activity." [5] And a more elaborate recent statement of the theory of business taxation [6]

[5] "Final Report of the Committee of the National Tax Association on Federal Taxation of Corporations," *Proceedings, National Tax Association*, 1939, p. 537.
[6] Paul Studenski, "Toward a Theory of Business Taxation," *Journal of Political Economy*, October, 1940, p. 621 ff.

justifies business taxes separate from those on property, personal income, and consumption on "one or the other" of these eight grounds: (1) special privileges (licenses, franchises, or charters) conferred by the state on certain types of business, (2) special services (inspection of dangerous equipment, special protection) rendered to certain businesses, (3) general services (protection of property, enforcement of contracts, public education, public improvements, etc.) rendered to all business, (4) social costs or losses (destruction of national resources, pollution, over-crowding, industrial accidents, technological unemployment, etc.) resulting from certain business operations, (5) impersonal taxpaying capacity of business, (6) general welfare (a means by which to tax the general public through the price system), (7) social expediency (revenue productivity, ease of administration, popular acquiescence), and (8) exercise of desired social controls (discouragement of imports, chain stores, excessive profits). Here the whole gamut of tax justifications appears: benefit, cost, ability, revenue productivity, and control. It is profitable to examine each separately as a justification for special business taxation.

The benefit principle is presumed to justify special business taxation on grounds that the state confers both special benefits upon certain businesses and general benefits upon the business community as a whole. Among the special benefits are: the privilege of conducting business under the corporate form; the privilege granted to public utilities to operate on the public domain (on, over, and under city streets); the privilege of conducting special types of business in which the public possesses a special concern for the quality of performance; and special protection of various sorts. It is easily granted that such benefits do exist. But it is quite another matter to justify general business taxes upon such grounds. The administrative revenues represent, as a class, the payment of special fees for the receipt of special governmental benefits. Government is, therefore, "working both sides of the street" in imposing additional business taxes on grounds of special benefit. The privilege of incorporation is open to all under modern statutes; the administrative cost of issuing the charter is supposedly covered by the fee. In the case of public utilities, the franchise to operate on the public domain as

a monopoly is frequently paid for, but the real *quid pro quo* is public regulation of rates and practices to secure for the society a desired service of good quality at reasonable rates. What special benefit remains to justify the imposition of a business tax? In those business fields where the public interest requires regulation of certain phases of operation, such as the inspection of elevators, and control of the conditions under which milk, meat, drugs, medicines, and similar items are produced and distributed, the costs of inspection and administration are generally met by special license fees. The benefits of such inspection and regulation do not accrue to the business, but to the consuming public; it is difficult to justify taxation of the business on benefit grounds. Where special protection of property is needed, there is a growing tendency to provide such protection privately. Businesses frequently provide their own watchmen, police, and fire inspectors, build with fireproof materials, construct fences or walls, and provide facilities for safekeeping of valuables. When special protection is furnished by government, this is quite generally done at a price. Under such circumstances the justification of general business taxation on grounds of special protection is largely unreal.

The general benefits presumed to justify special taxation of business present somewhat similar problems of allocation. These general benefits are: protection of life and property, prevention of torts, enforcement of contracts, public improvements, public education, and all of those conditions of a favorable business climate which are encouraged by the performance of general governmental functions. The translation of such general benefit into specific tax bills implies an ability to allocate such benefits which does not exist. Clearly business does benefit from the maintenance of an orderly society. But business is merely an aspect of that society; society itself benefits from an orderly society. Indeed the benefit principle of taxation appears to foster the popular inversion of the facts by assuming that society exists for business and social stability is desired for purposes of business stability. In general terms, a desirable business climate is but a part of a desirable social climate—a productive economy is essential to a productive society. This being the case we recognize protection of life and property, public education, and public im-

provements to be means to social objectives, with which economic objectives are merged. The attempt to allocate general benefits to individual businesses is thus both futile and unreal. The allocation of tax obligations must logically conform to the ability principle.

But does the ability principle support a separate category of taxes on business? In other words, do business enterprises possess taxpaying ability distinct from the abilities of those who derive income from business? The preponderance of expert opinion appears to answer this question in the negative, though there are staunch supporters of the belief that "business enterprises are producing organizations having a personality of their own," [7] and thus have separate taxpaying capacity from that of the individuals who compose them. What is required here is a re-examination of the ability principle. Ability to pay is ability to give up; the less the sacrifice involved in transferring a dollar to government the greater that taxpayer's ability. It has no relevance for a business as such, but only for those who derive income from the business. Professor Studenski, a strong supporter of the belief that business does possess separate ability, appears to qualify his position when he says: "This ability, *except in personally conducted businesses*, is distinct from the personal abilities of the owners to pay taxes from their incomes." [8] The implication is that in personally conducted businesses the ability of the business and of the owner are identical. But does the corporate form or the separation of the functions of ownership and management create a new and distinct ability? If so, at what point does this distinct ability appear as we pass from the personally conducted to the impersonally conducted business? It would seem quite obvious that the business organization is but an instrument for the production of personal income, and that the form of business organization and the techniques of business operation do not alter that basic fact. We recall again our basic principle that taxes are paid from the stream of personal incomes. Taxes collected on incomes prior to their distribution to individuals reduce realized individual incomes by the amount of those taxes. Thus the tax burden is upon individuals, and in most cases is badly allocated among them because it is levied before distri-

[7] Studenski, *op. cit.*, p. 632.
[8] *Op. cit.*, p. 633. Italics added.

bution and therefore typically bears little relation to individual ability.

We may dismiss rather quickly the need for revenue and the desire to exercise control as justifications for business taxation. The need for revenue is a perfectly respectable need, provided it is sufficiently subordinated to the need for elementary justice and the objective of a high level of business activity. These primary objectives call for distribution of the revenue burden on the bases of ability and (when pertinent or possible) benefit. But a tax which does not qualify under the principles of ability or benefit can hardly qualify as an acceptable producer of revenue. The control function may be perfectly well accomplished through special types of business taxation. It cannot, however, justify general taxation of business *per se,* and therefore is hardly pertinent to the matter in hand.

The elaborate case for business taxation as a major pillar of the fiscal system is a shoddy one at best. Separately considered, the particular theories supporting such taxes are found to be either unacceptable or acceptable only when applied in limited and special situations. But to argue that there are many such special situations and that therefore general business taxation is justified on "one or the other" of several grounds is obviously an invitation to blind pursuit of revenue at any cost. It is comparable with an argument that with so many laws it is inevitable that each person must have broken at least one, and that therefore everyone should periodically serve a jail sentence.[9]

TYPES OF STATE BUSINESS TAXES

As stated at the beginning of this chapter, it is frequently difficult to determine which taxes in a state system are intended as business taxes. Many states still utilize the property tax as a major contributor to revenues, and in its administration it is frequently desirable to impose property taxes on businesses measured by gross or net income. These are not intended as business taxes, but

[9] The frail theoretical rationale by which general business taxes are "justified" falls apart completely when the incidence of particular business taxes is considered. This matter will be pursued later in the chapter, following description of major types of existing business taxes.

as property taxes. On the other hand, the recent rise in importance of consumption taxes frequently presents a problem in determining whether a tax upon gross receipts finds its justification in the theory of consumption or of business taxation. And finally, among those states employing the personal income tax as a major fiscal measure, several utilize corporate income taxes as adjuncts to personal income taxes. We are interested here in those taxes upon business which are given separate existence from property, income, and consumption taxes, and find their theoretical rationale in the arguments of special benefit or special ability discussed earlier in this chapter.

Attempts at uniform taxation of business enterprises early meet the basic difficulty that business itself is so heterogeneous as to offer few if any simple and uniform tax bases. And sooner or later in the process of constructing an acceptable business tax system it becomes necessary to grapple with the basic question whether the tax is in fact based upon benefit or upon ability. The principal types of business taxes are those based upon net or gross income and those based upon the amount of capital employed.

Business Taxes on Net Income Were it not for two difficulties—one theoretical and one practical—it is highly probable that a general preference would exist for business taxes based on net income. The theoretical difficulty is found in the presumption that by and large the general benefit principle is material to business taxation. The benefits of a favorable business climate are extended to unprofitable as well as profitable concerns, while under a net income tax only the profitable concern pays for these benefits. Here is a clear conflict between the principle of benefit and the principle of ability. The practical difficulty in a general business net income tax lies in the lack of uniformity among business accounting systems. Quite obviously if the base of the tax is to be net income it is important that all taxpayers compute net income by the same method. Yet the reader may look at the multiplicity of types of business establishments in his own community to observe the difficulties involved in imposing uniform and accurate accounting systems upon all businesses. In retail trade and service establishments such a procedure is hardly imaginable. For this reason, those states which employ business net income taxes generally apply them only to incorporated

businesses. The accounting systems of corporations are in general far superior to those of the average of unincorporated firms, particularly in view of the standardization of corporate accounting methods made necessary by the long-standing federal corporate income tax. State corporate net income taxes uniformly employ flat rates. In some cases a minimum annual tax of a flat amount is assessed, to pay for benefits conferred, while a net income tax is paid when its amount exceeds the minimum tax. Here is the curious implication that the business pays its tax on the basis of either "ability" or "benefit," whichever is the greater.

"Business" Taxes on Gross Income [10] Taxes levied upon the gross income of a business are actually sales taxes. The amount of the tax is measured by the volume of sales, its imposition adds directly to variable costs of production or distribution, and its incidence is identical with that of a tax on sales. Failure to recognize this fact has led many state governments to assume that because the tax is imposed upon businesses as such, and because it is called a "business tax," it is therefore essentially similar to a tax upon the net income of a business.

"Business" taxes on gross income have generally been applied to unincorporated businesses and to public utility concerns. There are two reasons why gross income "business" taxes have been widely applied to unincorporated businesses. The first is that the business benefits provided by government are made available irrespective of the amount of *net* income earned by the firm, and that even unprofitable firms should bear their share of the cost. The second reason is that if net income were used as the base of the tax it would be necessary to insist upon uniformity in accounting systems, so that net income would be determined by the same process in all of these miscellaneous unincorporated firms. Since imposition of uniformity in accounting systems upon small, miscellaneous firms is impracticable, the gross income base has been adopted.[11] Uniformity in the

[10] We lump together taxes based on "gross income," "gross receipts," and "gross earnings," which, although they are not precisely the same, are generally similar in nature.

[11] A further reason why the net income tax may not be practicable for unincorporated businesses is that, being closely held, it is possible to avoid the appearance of high net income by payment of high salary to the owner.

method of calculating net income does exist among corporations, since the federal corporation income tax has long required it. But a shift in tax bases from net to gross income, for whatever reason, involves basic change in the type of tax. The business net income tax on business is paid from the net income of the business, while a "business" gross income tax is a tax primarily upon consumers, and is not a business tax at all.[12]

Capital Stock Taxes By far the most widespread of state business taxes upon general corporations is that based upon the amount of capital. Some twenty-seven states utilize this form of corporate business tax.[13] It is commonly referred to as the "corporation franchise tax," suggesting that its justification rests upon special benefit conferred upon business operating under the corporate form of organization. If possible, this type of tax ignores "ability" even more completely than does the gross income tax, for the ratio of net income to capital will fluctuate even more widely than does the ratio of net to gross income.[14]

Taxation of Special Types of Business We have already noted widespread use of the gross income business tax upon

[12] Gross income business taxes are generally applied by states to public utilities and railroads. This is done partly to avoid net income, which is the principal datum in the regulation of rates, frequently because the tax is intended as a tax on consumers, and generally because gross income represents a base which is more easily proportioned to the intrastate operations of an interstate business than is net income. But whatever the reason, the tax is a tax on sales and is not a "business tax."

[13] Determined from *Tax Systems*, 10th ed., Chicago, Commerce Clearing House, 1946, pp. 5–87. The determination is admittedly rough, since it is frequently difficult to be certain from the summary tables that intended property, income, or sales taxes are excluded. By the same rough determination it is noted that eight states impose business taxes on corporate net income, one requires the equivalent of an annual filing fee, while many tax the net income of corporations in connection with personal income taxes. How many of these latter exempt dividends from personal income taxes—thus using the corporate income tax as an instrument for collecting personal dividend income at the source—is not determinable from the tables. All states require incorporation fees at the time of incorporation. Few states apply business taxes to general unincorporated businesses.

[14] This is particularly true when the franchise tax uses as its base the par or paid-in value of capital stock. When the base is the owners' equity (book value of capital plus surplus plus undivided profits) it is only slightly less true

public utility enterprises. This is due to the special nature of these enterprises. But there are other business areas in which special types of business taxes have been imposed. Notable among them are banks and insurance companies. The peculiarities of bank taxation by the states have been due primarily to federal legislation limiting the types of taxes which the states could impose upon national banks.[15] We shall not consider the intricacies of the legal limitations upon state taxation of national banks. But in general, the problem of state taxation of banks has been to steer a course between the desire to equalize tax burdens among various types of business on the one hand, and the tax limitations imposed upon the states by the National Banking Act on the other.[16]

The taxation of insurance companies raises special problems, not because of federal restrictions but because of the necessity for selection of special tax bases to provide business tax burdens comparable with those on other businesses.[17] The calculation of net income is difficult, in view of the uncertainty of the volume of reserves required. Furthermore, the computation of net income for tax purposes in mutual companies is well-nigh impossible. The absence of capital stock in mutual companies rules out a popular base for the business franchise tax. The type of insurance business tax most popular is that on net premiums, variously defined among the various states, by which is meant gross premium receipts less some or all of returned premiums, cancellations, dividends, and premiums on reinsurance. The typical base is thus similar to gross income, though qualified to take account of practices peculiar to the insurance business.

Productivity of State Business Taxes Little precise information can be given concerning the revenue productivity of state business taxes. This is due partly to the difficulties involved in acquiring comparable data from the various states, but is to a more important degree due to the difficulty of distinguishing in the statistics true business taxes from other types. It is quite evident,

[15] For detailed discussion of bank taxation, see Ronald B. Welch, *State and Local Taxation of Banks in the United States*, 1934, Special Report to the (New York State) Tax Commission. No. 7.

[16] Specifically, Section 5219, Revised Statutes.

[17] See *Report of Connecticut Temporary Commission*, 1934, Chapter 13, for a good analytical treatment of insurance company taxation.

however, that the business taxes contribute but a meager proportion of state revenues, even if we exclude federal grants from the total of revenues. The Federation of Tax Administrators reported that in 1939 the state corporation income taxes produced 3.5 per cent of tax and license revenues of the states.[18] A part of this should be credited to source-collections of personal income taxes, while small lump sum tax collections from unincorporated businesses should probably be added to arrive at a total of business tax revenues. In 1942 this figure had risen to 7 per cent of total tax and license revenues, principally because of the great increase in war production. The states draw more revenue from fees and license charges upon business than from general or special business taxes.

FEDERAL BUSINESS TAXES

It is quite generally presumed that the field of business taxation represents a revenue preserve of the state and local governments. This presumption grows out of the benefit principle of business taxation—the benefits, both general and specific, conferred upon business are presumed to flow principally from state and local governments. In the light of recently developed interest in economic affairs by the federal government it is doubtful that the creation of an economic climate can any longer be attributed principally to state and local government. And the period (since 1930) during which the federal government established itself as a primary influence in economic and business affairs has seen rapid expansion of federal business taxation. This development is partly accidental and partly inevitable. The accidental aspects relate almost wholly to the war and the excess profits tax. The inevitable aspects relate to the corporation income tax; the inevitability is, however, accounted for by revenue needs rather than by any rationale with respect to federal benefits conferred upon business. These two taxes —corporation income and excess profits—represent the business tax measures employed by the federal government.[19]

[18] Research Report No. 16, *Recent Trends in State Revenues, Chicago* (no date), p. 6.

[19] This ignores the federal Capital Stock Tax and Declared Value Excess Profits Tax, employed from 1933 to 1945. Both were troublesome, unpopular, and unproductive taxes, adopted in lieu of an increase in corporation income taxes.

The Federal Corporation Income Tax We have seen in Chapter 16 how the corporation income tax was employed in 1913 simply as an instrument for collection of the personal income tax on dividends at the source. Although beginning with the First World War the two taxes followed somewhat divergent courses, resulting in heavier burdens upon dividend incomes than upon other incomes, the separation was not complete until the Act of 1936. By this Act, it will be recalled, not only was the corporate surtax of the previous year continued, but dividends in the hands of individuals became subject to personal normal and surtaxes after having paid corporate normal and surtaxes as corporate net income. It can hardly be said that this fission of the income tax system which created a full-fledged federal business tax was the product of rational analysis. It was a purely opportunist action, motivated by the desire for revenue.

The corporation income tax applies essentially the same computations employed by the personal income tax. From gross receipts (or sales) of the corporation are deducted the costs of production, taxes, uncompensated losses, contributions, and interest on tax-free government securities. Net capital gain is included as income; there can be not net capital loss deductible in any year from other income though an excess of capital losses in any year can be carried forward for a period of five years to be deducted from capital gains in those years. Corporate normal tax rates range under the 1945 Act from 15 per cent to 24 per cent, the latter being a flat rate applicable to all net income when it is in excess of $50 thousand. The corporate surtax base is net income less a credit for dividends received from other taxpaying corporations, and the rates under the 1945 Act range from 6 per cent to 14 per cent, the latter rate being applicable to the whole of surtax net income over $50 thousand.

Table 36 shows the revenue importance of the federal corporation income tax for selected recent years. The reader will recognize that the figures are not entirely comparable, for prior to 1936 a share of corporate income tax revenues represented collection of personal income taxes on dividends at the source. The severe decline in relative importance during the Second World War is due not to absolute

TABLE 36 Federal Corporate Income Tax Receipts and Per Cent of Total Internal Revenue, Selected Years [20]

YEAR	CORPORATION INCOME TAX RECEIPTS (*$ millions*)	PER CENT OF TOTAL INTERNAL REVENUE RECEIPTS[a]
1923	937.1	54.8
1928	1,291.8	46.3
1932	629.6	40.4
1939	2,151.3	41.5
1945	4,879.7	11.1
1946	3,901.9	9.7

[a] Internal revenue excludes railroad unemployment insurance contributions, customs, price revenues, and administrative revenues. The total of revenues excluded is relatively small.

decline in corporate tax revenues, but to marked increase in revenue from the personal income tax, the excess profits tax, and the miscellaneous excises. In 1945, for example, corporation income tax receipts were nearly $5 billion, and were exceeded by revenues from individual income taxes (*ca.*, $19 billion), excess profits taxes (*ca.*, $11 billion), and miscellaneous excises (*ca.*, $7 billion.) [21] The excess profits tax has since been repealed, while many of the excises are likely to be reduced or repealed. It is almost certain that a significant peacetime reduction of the level of individual income taxation will occur. One may guess, therefore, that the relative revenue importance of the corporate income tax will increase markedly from its wartime low.

These figures indicate a heavy federal dependence upon the business income tax. Unfortunately it is impossible to justify this dependence on rational grounds of tax justice, or the principles of benefit or ability. It is particularly to be noted that the federal business tax applies only to those businesses operating under the corporate form of organization. The share of business done and income received by unincorporated business in the United States is by no means insignificant; yet such concerns are freed from federal

[20] Figures taken from *Statistical Abstract*, 1924, 1933, 1940, 1946, and from *Annual Report of the Secretary of the Treasury*, 1946, pp. 681, 683.

[21] *Annual Report of the Secretary of the Treasury*, 1945, pp. 724–26.

business taxation. It would seem that if the separate taxation of business is reasonable, comparable taxes should be placed upon all types of business. Yet this is done neither by the federal government nor by most states.

The Federal Excess Profits Tax[22] The excess profits tax is essentially a wartime phenomenon. During peacetime the notion of taxing "excess" profits is generally regarded as inconsistent with the principles under which the private enterprise system operates. For in peace, high profits when they occur are presumed to be the prize for successful acceptance of risk—not infrequently offset by heavy losses—or the prize for efficient management under competitive conditions. To impose a tax penalty upon temporarily high profits is to discourage both the assumption of risk and the drive to greater efficiency. If abnormally high profits exist over a long period of time in any business, the appropriate line of attack is probably through anti-monopoly legislation.

In wartime, however, conditions are quite different. The need for revenue—generally the overriding fiscal consideration in times of emergency—is acute. Further, it is generally regarded as unfair and destructive of war morale that excessive profits should be realized during a period of national emergency when heavy sacrifices are being borne by the major portion of the society. These two factors—revenue needs and public antipathy toward war "profiteers" —almost exclusively account for the imposition of excess profits taxes in the United States during the First World War. While these same factors were dominant in urging profits taxation in the Second World War, certain economic refinements were added to the argument. The prevention of serious general price increase was strongly desired. This implied transfers of excess profit incomes to government, both to remove from private hands funds which could add to in-

[22] A readable and useful book, dealing principally with the historical and descriptive aspects of this subject is Kenneth J. Curran, *Excess Profits Taxation*, Washington, American Council on Public Affairs, 1943. For an analytical discussion, and for special reference to British experience, see J. R. Hicks, V. K. Hicks, and L. Rostas, *The Taxation of War Wealth*, Oxford, 1941. A. G. Hart and E. D. Allen, *Paying for Defense*, Philadelphia, Blakiston, 1941, presents a good short discussion, especially in Chapter 12.

flationary pressure and to absorb investment funds which might otherwise be placed in non-essential production and thus waste scarce productive resources. With respect to war profiteering, it was to be avoided not only on account of its social injustice but because of the opportunity it gave scarce and highly organized labor to drive for higher wages, both on grounds of elementary fairness and of the increase in living costs. Among experts, therefore, the function of excess profits taxation was regarded less as an anti-profiteer instrument than as one of many tools for the prevention of serious inflation.

During World War I excess profits taxation began in the United States as a pure *war profits* tax on munitions makers. By the Act of 1916, an excise was imposed upon net profits from the sale of munitions, very narrowly defined. It became evident rather soon, however, that war profits do not accrue only to the makers of some war instruments, and by two acts of 1917 profits taxation was made to apply to others than the sellers of munitions. The first of these two acts (March) applied only to partnerships and corporations, and was a *high profits* or *excess profits* tax since its base was those profits of any firm in excess of 8 per cent of invested capital. The second of these acts (October) provided essentially a *war profits* tax, whose base was profits in excess of the average of the "normal" years of 1911–13. However, a high profits qualification was introduced by considering as normal profits only those up to 9 per cent of invested capital. The tax applied to all forms of business organization. By the Revenue Act of 1918 a new system, called the "War Profits and Excess Profits Tax," was inaugurated. It applied only to corporations; the War Profits tax base was the excess profit in the taxable year over the average 1911–13 profit, while the Excess Profits tax base was profit in excess of 8% of invested capital. The taxpayer was liable for the larger of the two taxes.[23]

The war and excess profits taxes were repealed in 1921. During the period of their operation (1917–22) they produced total revenue of more than $7 billion, nearly one-fourth of all federal revenue re-

[23] Some of the more intricate problems of profits taxation will be considered in connection with excess profits taxation in the Second World War.

ceipts of that period.[24] Excess profits taxes exceeded income tax revenues during the war years 1917 and 1918. Curran's analysis of the "netness" of excess profits tax revenues points out, however, that without profits taxes, personal and/or corporate income taxes would have been increased, for three reasons: (1) payment of profits taxes reduced the magnitude of the stream of dividends, and thus reduced the personal income tax base; (2) profits taxes paid were deductible from net income for corporate income tax purposes, and for individual income tax purposes when profits taxes were assessed against individual enterprises; and (3) the high excess profits tax encouraged evasion and avoidance. Avoidance was possible by excessive expenditures on advertising and personnel relations, so as to reduce net income, and by postponing capital gains and realizing capital losses. Though the total revenue effect upon the income tax of such provisions and actions was probably considerable, it is nevertheless true that the excess profits tax was highly productive of net revenue.

Some brief mention should be made of the Declared Value Excess Profits Tax, originated in 1933 and repealed by the Revenue Act of 1945. This measure should not be regarded, however, as a serious attempt to tax excess profits in peace time, but rather as an adjunct of the Capital Stock Tax, whose life span was identical with it. The Capital Stock Tax was levied at the rate of 0.1 per cent on the capital stock of a corporation. To avoid difficulties of evaluation, the taxpaying corporation was allowed to place its own value upon its stock. And in order to forestall too low valuation for tax purposes the Declared Value Excess Profits tax was employed, placing a tax of 5 per cent upon all profits in excess of 12½ per cent of the declared capital stock value.[25] It is reasonable to conclude that in general the revenues produced by the Declared Value Excess Profits Tax ($117 million in 1945) should in fact be considered as Capital Stock Tax

[24] Curran, *op. cit.*, p. 136.

[25] The corporation which guessed wrongly as to its future earnings (it was assumed that the value of capital stock would be determined by capitalization of expected earnings) might well experience real penalty in this excess profits tax. It was not until 1942 that this situation was largely eliminated by allowing the corporation to revise the declaration of the value of its capital stock annually.

revenues ($372 million in 1945).[26] Professor Groves has characterized these two taxes in the following terms:

> They add little to the tax system but complication, extra compliance costs, and occasionally capricious results, and they are essentially inimical to small companies. Calculation for these taxes is carried on in an artificial atmosphere all but divorced from reality; they are a lawyer's plaything rather than a producer's levy; and they serve principally as a monument to the misdirected ingenuity of taxmakers.[27]

The World War II excess profits tax was inaugurated in 1940. Although the United States was more than a year away from active military participation, her role as the "arsenal of democracy" created the type of war economic atmosphere to which an excess profits tax is a modern integral part. The taxpayer was allowed to choose whether to subject himself to a strictly war profits tax or a strictly excess profits tax. He was given the alternatives of calculating as "normal" (and thus not "excess") profits those equal to 95 per cent of his average profits for the years 1936–39, or those equal to 8 per cent of his invested capital.[28] Only corporations were subject to the tax, and the computation of net profits followed closely the computation of net income under the corporation income tax.

Rates were subjected to several changes during the war period; in 1940 they were graduated from 25 per cent to 50 per cent, while from 1944 on a flat rate of 95 per cent was imposed, with the over-all proviso that corporate income and excess profits taxes could not exceed 80 per cent of the corporation's surtax net income. The revenue produced by this tax during the war years is indicated on the next page.[29]

[26] *Annual Report of the Secretary of the Treasury*, 1945, p. 724.

[27] Reprinted by permission from pp. 82, 83 of *Postwar Taxation and Economic Progress*, by Harold M. Groves, copyright, 1946, by the Committee for Economic Development and published by the McGraw-Hill Book Company, Inc.

[28] Firms not in existence during the base period were of course required to compute their tax on the invested capital base. By an amendment of 1941, new capital invested was added to the base of 125% of its amount, in order to encourage expansion. Firms which had shown marked increase in profits during the period 1936–39 were allowed a normal profits base in excess of their average through the period.

[29] *Statistical Abstract of the United States*, 1946, p. 319.

As in the case of the World War I tax, this cannot all be considered net revenue, though particularly in the later years the net revenue contribution was very substantial.

YEAR	REVENUE (*$ millions*)
1941	192.4
1942	1,670.4
1943	5,146.3
1944	9,482.2
1945	11,147.3

Certain features of the World War II tax are worthy of consideration. The earlier rate schedules were progressive with the size of excess profits net income. It was not, therefore, adjusted to individual ability to pay, as individual abilities are in no marked degree correlated with the magnitude of a corporation's excess income. In 1944, with the shift to a flat rate, consideration for the small enterprise (which would supposedly be more seriously affected by post-war adjustments) was introduced by raising the minimum of excess profits exempt from taxation from $5000 to $10,000.[30]

As noted above, the taxpayer was given his choice between two methods of computing excess profits. The income method based "normal" profits on the average of net income plus all advertising expenditures during the base period 1936–39. Ninety-five per cent of the average "normal" profit during the base period was regarded as "excess profits net income." The term is somewhat misleading, but represents the amount of profits regarded as not excessive. This reflects a presumption that actual profits during the base period were slightly above "normal." To the excess profits net income was added 8 per cent of additions to capital since the base period, to provide "normal" return on new capital (quite inconsistently, but 6 per cent of capital reductions since the base period were deducted from excess profits net income). The base of the tax in any year was net income for the taxable year less "excess profits credit" (the sum of excess profits net income and 8 per cent of capital additions), less unused excess profits credit carried forward or backward two years,

[30] $25,000 after December 31, 1945.

and less the specific exemption $5000, $10,000 or $25,000 depending upon the year).

The invested capital method involved a quite different computation, to be used at the option of the taxpayer or in cases where the taxpayer was not operating during the base period.[31] This method looked toward taxation of "high" or "excess" profits, and determined the amount of excess by comparison of profits with a standard or appropriate return. Determination of the tax base by the invested capital method began with the net income of the firm for the taxable year. From this figure three deductions were made to determine taxable excess profits: (1) the percentage [32] return on invested capital considered "normal" and not excessive; (2) the specific exemption of $10,000 or $25,000 (the latter for the year 1946); and (3) unused credit carried over from the preceding two years.[33] In an outline description of this sort numbers (2) and (3) require no elaboration, though the determination of "invested capital" should be explained. It consisted, in general, of the daily average of the net worth (capital, surplus, and undivided profits) of the corporation plus one-half of borrowed capital represented by written evidences of debt. The inclusion of 8 (6 or 5) per cent of but one-half of borrowed capital in the excess profits credit is more liberal than was the 1918 law, which made no provision for inclusion of borrowed capital. On the other hand, no more than one-half of borrowed capital was permitted on grounds that the allowed per cent of invested capital regarded as normal profit was in most cases far in excess of interest paid for the use of that capital. Without this limitation the profit position after taxes of the owners of a firm with a small proportion of equity capital and a large proportion of borrowed capital would be superior to that of a firm in the opposite circumstances. Such a provision would presumably encourage the retirement of

[31] If the taxpayer was operating during a part, but not all of the base period, he was entitled to use 8% of invested capital as base period income in any year during which he was not in operation.

[32] The percentages allowed were 8% of the first $5 million of invested capital, 6% of that amount between $5 million and $10 million, and 5% of that amount over $10 million. The revenue objective is here evident.

[33] A carry-back for two years was also permitted. This would result in a refund.

debt out of net income, placing the firm in a somewhat stronger post-war position.

A further provision of World War II excess profits taxation is of special economic significance. Concerns constructing, acquiring, or installing "war emergency facilities" were allowed to amortize the cost of such facilities over a period of sixty months. The provision was included to encourage private provision of new war production facilities by considering their service life to be no longer than five years. The major risk in undertaking plant extensions lay in the possibility that they would represent excess capacity after termination of the war emergency. This amortization allowance was handled as a cost of operation deductible from gross income in arriving at the base of both the corporate income tax and the excess profits tax.[34] To the extent that it was utilized, corporations should have emerged from the war in a position to undertake peacetime production with lower plant overhead. Some three-fourths of war emergency facilities are estimated to have been provided by federal government corporations out of Treasury borrowed funds,[35] the remainder representing private investment. Because of the tax provision for rapid amortization, and the liberality of prices paid by government for war materials, government actually paid for a large share of that portion of emergency facilities normally provided by private concerns. It is quite possible that in terms of over-all effect, the provision of emergency facilities would have been cheaper to government if it had furnished the whole and increased its tax revenues by avoiding the amortization deduction.

Finally, we have seen that the excess profits tax provided for a two-year carry-back or carry-forward of unused excess profits credit. Under the Revenue Act of 1945, which repealed the excess profits tax as of December 31, 1945, unused excess profits credits were allowed for a taxable year beginning before January 1, 1947. Thus, though there was no excess profits tax collectible on 1946 or 1947

[34] Computation of excess profits tax began with corporation normal tax net income. Thus the amortization deduction applied to calculation of both taxes.

[35] A. D. H. Kaplan has shown that of a total of $22 billion in new industrial facilities created during the war just under $16 billion was financed with public, as distinguished from private, funds. ("Liquidating War Production," in S. E. Harris, *Economic Reconstruction*, New York, McGraw-Hill, 1946, p. 133.)

profits, concerns were allowed to carry forward excess profits credits for those years. This meant that firms which in 1946 or part of 1947 failed to earn amounts equal to what would have been allowed as excess profits credit when the tax was in force, could receive rebates to that extent from excess profits paid in 1944 and 1945. The intent of this provision was to assist firms through the reconversion period. Corporate reports indicate that many firms which showed profits in 1946 actually made some part of all of these profits out of excess profits tax rebates. The charge made by representatives of organized labor that the tax refund provisions of the Act of 1945 made it possible for strike-bound firms to delay coming to terms in 1945 and 1946 was undoubtedly true in some instances. By a curious twist of fate, in such cases a pro-labor government helped to finance employer opposition to labor's demands.

Evaluation of Excess Profits Tax Experience in World War II The tax, designed to provide large war revenues, prevent the creation of "war millionaires," and combat inflation, was only moderately successful. Large revenues were produced, though they doubtless could have been larger without discouraging production. The record of corporate profits after taxes shows no absence of the stuff of which millionaires are made. This is explained in Groves' statement: "The war excess-profits tax is an example of the propensity of Congress to levy a tax at conspicuously high rates but with a relatively 'easy' base." [36] Certainly the man in the street is not satisfied that the creation of war millionaires was prevented; nor did labor's actions in the war and immediate postwar periods indicate official labor belief that war profits were reasonably moderated by the tax.

As for the prevention of inflation, although the war record was good, the credit is due far more to direct price controls and rationing than to taxation. Obviously the excess profits tax alone could not hold the price line, even if it had operated perfectly. War experience indicates that what was needed was an effective companion to a more effective excess profits tax. A companion frequently recom-

[36] Reprinted by permission from p. 75 of *Postwar Taxation and Economic Progress*, by Harold M. Groves, copyright, 1946, by the Committee for Economic Development and published by the McGraw-Hill Book Company, Inc.

mended was a general "excess income tax," which would apply the excess profits tax principle to other types of income and to profits derived from unincorporated businesses.[37] It is probable, however, that a more vigorous increase in personal income tax rates combined with severe lowering of personal exemptions could have accomplished the same purpose effectively.[38] The question may logically be raised why with heavier personal income taxation the excess profits tax could not have been dispensed with. The answer lies principally in the effectiveness of the personal income tax as then and now constituted in preventing the escape of undistributed corporate profits from income taxation.

It is difficult to mourn the repeal of the excess profits tax. Its sole peacetime use, in view of the existence of other income taxes, would appear to be as an instrument for discouraging monopoly profits and thus discouraging monopolistic organization and practice. Yet, there must be more effective direct methods of dealing with the monopoly problem. The excess profits tax, if severe enough to confiscate monopoly profits, might at the same time discourage risk-taking and the furtherance of efficiency in production. And it might be effectively argued that the tax with which we have had experience favors the steady (though rather high) profit income which characterizes monopoly while burdening the fluctuating incomes typical of venturesome employment of capital in a competitive economy. If this is a fair observation a peacetime excess profits tax similar to that employed during the recent war might well encourage monopoly.[39]

INCIDENCE OF BUSINESS TAXES

To this point we have presented the rationale of a category of business taxes separate from those on property, income, and consumption, and have briefly described the principal types employed by state and federal governments. These principal types are

[37] This recommendation was urged by (among others) Hart and Allen, *op. cit.*, and Hicks, Hicks, and Rostas, *op. cit.*

[38] This is not to say that fiscal measures could have been substituted for direct controls, but that direct control could have been more effective and more simple with stronger fiscal support.

[39] Groves presents substantially this point, *op. cit.*, pp. 76–77.

net income, excess profits, gross income, and capital stock taxes. Net income and excess profits taxes are typically not shifted, for reasons developed in the analysis of net income taxes in Chapter 13. The demand for a firm's product being given, the imposition of a net income tax does not change that demand. This being the case, the firm's choice of the proper quantity to be produced at the price the market will pay for that quantity does not change with imposition of the tax. The total income—price times quantity—which produces maximum net income before taxes will produce maximum net income after taxes.[40] The fact of differential net incomes among various firms implies that even temporary experimentation with attempts to shift the tax forward would be discouraged because of unwillingness of nearer-marginal firms to go along. This discouragement would presumably be stronger in the case of the excess profits tax than in the case of the net income tax, since many firms would be submarginal in the *excess* profits sense.

Though in the shorter run we are confident that the net income tax and the excess profits tax are not shifted, this fact in itself may, under certain circumstances, make possible some long-run shifting. If the tax is general, applying over a broad geographical area and affecting all business concerns, shifting will not occur. But if the area of application is narrow, the long-run effect may be to decrease the number of firms operating in the taxed area. This would tend to increase demand for the remaining firms, creating possibilities for forward shifting. Such conditions might well obtain under uncoordinated state business taxation—relative freedom from income taxation in neighboring states might well encourage the migration of business to those states.[41] And if the net income tax is imposed only upon certain classes of business (*e.g.*, munitions manufacturers), the same type of shifting may occur. Such shifting is less likely when the net income tax is applied only to a given form of

[40] This assumes, of course, that the firm was maximizing its net income before the tax. It does not ignore the fact that sales policy—advertising, etc.—can change demand, but assumes that the firm has or would have utilized such resources to maximize demand with or without the tax.

[41] It is presumed here that a state which taxes the net income of its own business firms imposes equivalent taxes on foreign firms doing business in that state.

organization (*e.g.*, corporations). Although in some lines of business, particularly those with heavy capital investment per unit of output, the corporate form of organization is virtually a *sine qua non,* in other lines business can be carried on by unincorporated concerns. We recognize, therefore, the possibility of long-run exceptions to the general rule that net income and excess profits taxes are not shifted.

Gross income taxes typically are shifted. For the tax on gross income is essentially one which adds a decreasing amount to variable cost of production as quantity of output increases.[42] We thus see again that the gross income "business" tax is merely an *ad valorem* sales tax. Marginal costs are increased by the tax, and therefore the point of maximum net income represents a smaller quantity and a higher price per unit. Consequently, some part of the tax is shifted forward; when demand is inelastic the tax is more completely shifted than under elastic demand conditions. But the gross income business tax is most notably applied by the states to businesses subject to public regulation (*i.e.*, public utilities), and in this application the tax is virtually completely shifted. For under rate regulation the objective is generally to establish rates which will provide a fair net return on investment. And since such regulated businesses do not typically fully exploit their demand possibilities—making higher rates possible without significant loss of business—and taxes are considered an expense deductible before determination of net return, the regulated rates typically include the tax. We are justified in the conclusion that the gross income tax is largely shifted on to the buyers of products.

The capital stock tax bears little relation to the quantity of a firm's output. It is but an addition (and in practice a minor one) to the fixed costs of production. As such, it affects neither of the two determinants (marginal revenue and marginal cost) of the quantity of output productive of maximum net income to the firm. Assuming, therefore, that the firm is maximizing net income before the tax,

[42] Because the typical demand curve is downward sloping from left to right, gross income *per unit* falls and the tax per unit decreases as quantity increases. A more complete analysis of the incidence of gross income taxes appears on page 333.

there is nothing to be gained in changing either output or price. Under such circumstances the tax will not be shifted. On the other hand, there are minor long-run possibilities for shifting through migration, and the analysis follows the same pattern as is indicated in our discussion above of long-run shifting possibilities in the net income or excess profits tax. In addition, however, a capital stock tax, which falls indiscriminantly upon profitable and unprofitable corporations, may cause elimination of marginal firms from the market, and thus increase demand facing those remaining. Under such circumstances some long-run shifting would occur. This is the major difference between net income and capital stock taxes, in terms of incidence. The marginal firm is free from net income taxes, while it is not free from the capital stock tax. The long-run possibilities of forward shifting would thus be somewhat greater in the case of the latter than of the former.

INCIDENCE AND THE RATIONALE OF BUSINESS TAXATION

Earlier in this chapter we surveyed the bases upon which separate taxation of business is in some quarters thought to be justified. Aside from the blind groping for additional revenue, we noted that business taxation is based upon one or more of the presumptions of (1) special benefit to certain individual businesses or classes of business, (2) general benefits to all business flowing from governmental maintenance of a favorable business climate, and (3) the existence in business of a capacity to pay taxes distinct from the capacities of those who derive personal incomes from business. We have raised serious doubt as to the feasibility of using special benefit as a justification for general business taxation. And we find it necessary to reject the general benefit theory of business taxation. The grounds for such rejection are several. Thoroughgoing utilization of the principle of benefit taxation would require the elimination of many governmental functions regarded as of primary social importance, since the beneficiaries cannot pay their own way. Furthermore, it is highly artificial to allocate general benefits among individual taxpayers, since by their nature such benefits are not allocable on any scientific grounds. In addition, where benefits are specific and individual enough to justify allocation, it is likely that

as revenue justifications these benefits have already served to their limit as justifications for price revenues and administrative revenues. And even general benefits implied in functions such as protection and education have already been overworked in supporting the theory of property taxation.

With respect to supposed distinct capacity of business to pay taxes, we find that it rests upon a quite inaccurate view of the nature of income. No separate business capacity does exist, distinct from the capacity of those economically entitled to income from the business. Beyond this, however, is it not logically quite inconsistent to embrace both the principle of benefit and the principle of ability in constructing a theory of business taxation? As theoretical bases for the apportionment of the burdens of government costs among individuals, each largely excludes the other. We are guilty of "working both sides of the street" by combining two largely exclusive concepts of equity.

Having determined the equity basis upon which a tax is to be built, the second step is to determine the type of tax base which most properly implements the principle of equity in practice. A business tax measured by business net income almost completely denies the benefit principle, while the business tax bases of gross income, net premiums, or the amount of capital stock almost completely deny the validity of the ability principle. Yet combinations of these bases are to be found in the "business tax system" of nearly every state.[43] This curious mixture of tax principles and tax bases results at times from practical difficulties in the application of an accepted "ideal" principle or tax base, but it is feared that in the majority of instances the mixture results from frustration in the development of generally acceptable business tax theory and consequent retreat to the haven of revenue opportunism.

One of the more serious sins of omission in business tax theory is its failure to relate tax incidence to tax justification.[44] Business

[43] The federal government is consistent in its adherence to a fallacious ability theory of business taxation.

[44] A striking example of this is Studenski, *op. cit.* Studenski begins by stating that separate taxation of business "can be justified on one or another of the following several grounds." There follows a list of eight separate justifications, embracing the principles of benefit, ability, revenue needs, and control through

taxes whose incidence finally falls upon consumers of the products of business can hardly be justified in terms of special business benefit or ability. They are found to be but consumption taxes in disguise, and can be rationalized only in terms of consumption tax theory. We see here a demonstration of the importance of a fact so frequently reiterated throughout this book—that unless incidence is reasonably accurately determinable, the consequences of a particular tax may be quite foreign to theoretical intent. We feel sure that business net income taxes are rarely shifted, and that their burden falls upon the business with net income. Such taxes can thus be justified only by a demonstration of separate business ability to pay, a demonstration impossible of achievement. We are driven to the conclusion that no separate field for the taxation of business *per se* exists.[45]

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taxation. One feels that his "one or another" should have been "one or more," and that it would be simply impossible to apply the various justifications in terms of a single over-all business tax. Nevertheless, a business tax measured by the value added by the firm—value of gross product less cost of materials—is recommended as best meeting the theoretical requirements. To this point in the analysis one has the uncomfortable feeling that he has been carrying water in a sieve. The discussion of incidence, however, shows that incidence would typically be largely on consumers, though it "would most likely vary greatly from industry to industry, depending on its nature and the relative elasticity of supply and demand and existence of competition or monopoly therein" (pp. 653–4). We cannot quarrel with the incidence analysis itself, but the incidence conclusions seem to have little relevance to the rationale of the tax. This tax is principally justified in terms of governmental benefits conferred upon business enterprises and the special taxpaying capacity of those enterprises. Yet, the incidence, so far as it is known, would fall largely upon consumers, whose benefits or whose ability are not regarded as entering into the tax justification. We are not disposed to single out this study for criticism. It does, however, fairly represent the thinking of supporters of separate business taxation, and illuminates the logical weaknesses inherent in that thinking.

[45] The author is fully aware that the conclusions from analysis of various kinds of taxes have been essentially negative with respect to most tax measures now in use. In view of but minor concern over the level of expenditures in modern times implied in early chapters and the insistence that public debt is not burdenless, the reader may well ask, "Where's the money coming from?" The next chapter will suggest an additional tax measure of which we might better rid ourselves. Let us admit that we are imposing upon ourselves major responsibilities for. recommendations which will insure adequate revenues. Such considerations appear in Chapter 24, "Integration of the Tax System."

RECOMMENDED READINGS

Shoup, C., "Business Taxes," *Encyclopaedia of the Social Sciences,* N. Y., Macmillan, 1934.

Short survey of the theory of business taxation.

Studenski, Paul, "Toward a Theory of Business Taxation," *Journal of Political Economy,* October, 1940, p. 621 ff.

A statement of the case for special business taxation. Should be read to gain the opposite point of view from that presented in the text chapter.

Curran, K. J., *Excess Profits Taxation,* Washington, American Council on Public Affairs, 1943.

Chapters 1 ("Fundamentals") and 12 ("In Retrospect") are recommended for general reading. The remainder of the book is description of specific measures.

CHAPTER 23

TAXES ON EMPLOYMENT AND MISCELLANEOUS TAXES

Our survey of major types of tax measures would not be complete without some attention to several miscellaneous taxes. Of these the employment taxes introduced by the Social Security Act of 1935 are of real consequence, both in revenue productivity and in economic effects. A major part of this chapter will be devoted to the *payroll taxes* created by the Social Security Act, which can be easily identified by the specific allocation of their revenues to old-age and unemployment compensation reserve accounts. Those other elements of the social security program—old-age assistance, aid to the blind, and aid to dependent children—which are financed by grants of federal funds matched by the states, are generally met from the general funds of the federal and state governments.[1] Since their financing has not generally given rise to special earmarked taxes,[2] we shall not be concerned with them here. We shall bring into this chapter a short discussion of the poll tax and of the federal "Unjust Enrichment Tax," two minor taxes which our survey of tax measures cannot completely ignore.

[1] The titles of the Social Security Act creating special earmarked taxes are that providing old-age and survivor annuities (Title VIII) and that establishing unemployment compensation (Title IX).

[2] These social security expenditures from general funds have been partially responsible for increases in state gasoline taxes, and for the spread of state personal income and sales taxes. In a few cases new earmarked taxes have been created, *e.g.*, Connecticut made of its poll tax an old age assistance tax.

TAXES ON EMPLOYMENT

The Old-Age Annuities Taxes The old-age insurance benefits of the Social Security Act are administered entirely by the federal government. Benefits are paid to retired persons after reaching age sixty-five, and the amount of annuity payment is roughly related to the wages of the employee at the time of retirement. Because of increasing average age of the population of the United States—resulting from declining birth- and death-rates—it was evident from the beginning that the annuity load would become increasingly heavy. The reserve principle was therefore adopted, employing some features of private insurance. Under this plan annual contributions to the Treasury during the early years of the plan would exceed benefit payments, the excess creating a reserve fund the interest upon which would be added to current contributions to meet benefit payments in later years.

The system of contributions was to employ a tax instrument rather than to collect individual premiums. Actually, two taxes were imposed to provide funds for old-age benefits: a tax upon the wages of the employee, withheld from his pay by his employer, and an excise of equal amount upon the employer. Each of these taxes was to begin at 1 per cent for each year between 1937 and 1944, to rise to 2 percent in 1945, to become 2½ per cent between 1946 and 1948, and to become permanently established at 3 per cent in 1949.[3] Eventually, therefore, the combined annual contribution of employers and employees was to be 6 per cent of wages or salaries. Exemptions from the tax (and from benefits) are made both with respect to certain employments and to certain wages and salaries. Those persons not covered by the Act include: self-employed persons, domestic servants, casual laborers, agricultural laborers, government employees, employees of non-profit organizations, workers over sixty-five years of age, and certain merchant seamen. It is estimated that approximately one-third of workers in the United States are not covered by this title of the Act. Wages and salaries in excess

[3] By a succession of amendments the 1% rate has been retained through fiscal 1948.

of $3000 per year are likewise not covered; retired workers receive benefits on the basis of "wages" not in excess of this amount, and the employment taxes do not apply to this excess.

In fiscal 1946 the combined old-age taxes on employers and employees produced approximately one and one-fourth billions for current payment of claims and additions to the reserve account. Total collections from 1937 through 1946 amounted to $8.4 billion.[4] The old-age and survivors reserve balance stood at $7.6 billion at the end of fiscal 1946.[5]

Unemployment Compensation Taxes The unemployment compensation provisions of the Social Security Act place major administration of the system in the hands of the states, with reasonable uniformity in state action accomplished by federal influence. A federal unemployment compensation tax is imposed upon employers of eight or more persons in non-exempt employments.[6] The tax began in 1936 at 1 per cent of wages paid to employees subject to the tax, rose to 2 per cent in 1937, and reached the permanent level of 3 per cent in 1938. As in the case of the old-age insurance taxes, wages and salaries in excess of $3000 per year are exempt from the tax. Federal influence working toward state uniformity is evident in the credit allowed against the federal tax in the amount of 90 per cent of state unemployment compensation taxes paid. Thus, for each $30 assessed by the federal tax against an employer in a state with an approved unemployment compensation system, $27 is credited to him for state unemployment taxes paid. If the state tax rate is 2.7 per cent (the federal rate being 3 per cent), this employer's total federal-state tax is $30, $27 going to the state and $3 to the federal government. If a state chose to enact no federally approved unemployment compensation law, the federal tax on its employers would be collected, but the funds would not be available for unemployment benefits to their employees. The effect of the

[4] *Annual Report of the Secretary of the Treasury,* 1946, pp. 412, 413.

[5] *Ibid.,* p. 569. Cumulative interest receipts from investment of the trust fund between 1937 and 1946 were just over two-thirds billion dollars, while cumulative expenditures from the account were just over one billion dollars.

[6] Exempt employments are essentially those exempt under the old-age benefits title.

credit provision has been enactment of approved systems by all states, with maximum tax rates generally at 2.7 per cent,[7] to receive the full benefit of the federal credit.

The system of unemployment compensation was set up to provide benefits when unemployment occurs. Considerable enthusiasm has been shown for reducing the incidence of unemployment by creating tax incentives for stabilizing employment. Under various "merit rating" or "experience rating" plans, forty-four states and the District of Columbia grant unemployment tax relief in the form of lower rates to those employers with good records in regularizing employment. In such states the applicable tax rate may fall as low as zero for employers with the highest merit rating.[8] The federal act recognizes the merit rating plan by considering merit-abated state taxes as if they had been paid in calculating the federal credit. Suppose, for example, that the federal tax at 3 per cent on an employer were $3000, and the standard state unemployment tax rate were 2.7 per cent. If the employer actually paid the standard rate, he would pay $2700 to his state and $300 to the federal government. Suppose, however, that because of high merit rating with the state his unemployment tax rate were .5%. He would actually pay $500 to the state and $300 to the federal government, the difference ($2200) being credited to him by the federal government even though not paid to the state. It is important to note that state merit rating systems must meet federal approval before merit abatements are deductible as part of the federal credit. In those cases where state tax rates are higher than 2.7 per cent, no part of the excess can be claimed as credit against the federal tax. For the federal credit is 90 per cent of the *federal* tax, not of the state tax. Those states which have adopted rates higher than 2.7 per cent of payrolls are not only employing merit incentives, but demerit penalties to encourage stability of em-

[7] As of September 1, 1946, thirty-two states and the District of Columbia imposed employment taxes at a maximum rate of 2.7% of payrolls. Sixteen states applied higher maximum rates. (*Tax Systems*, 10th ed., Chicago, Commerce Clearing House, 1946 (pp. 265–8). We speak of maximum rates to take cognizance of lower rates provided by the merit rating system, discussed in the following text paragraph.

[8] *Ibid.* The most popular minimum rates are 0% (5 states), .5% (12 states), .9% (7 states), and 1% (9 states).

ployment in firms. Four states impose wage taxes upon employees as well as payroll taxes on employers. The federal law allows no credit for such taxes paid.[9]

State employment tax collections are deposited in the federal Unemployment Trust Fund. By the end of fiiscal 1946 the balance in the Fund was $7.4 billion, representing 73 per cent of cumulative deposits from the states since 1936.[10] During the war period of high employment, contributions to the fund were heavy (though reduced by almost inevitably high merit ratings) and withdrawals light. During 1946 unemployment due to industrial reconversion and demobilization of the armed services slowed down the wartime rate of accumulation of the fund. The rapid growth of the reserve fund generated some unsuccessful agitation for reduction of federal unemployment tax rates immediately following World War II.

Incidence of Social Security Taxes on Employment[11]

We have noted three different taxes based upon employment introduced by the Social Security Act: the unemployment tax imposed upon employers; the old-age benefits tax imposed upon employers; and the wages tax on employees. Since the provision of retirement income benefits and of unemployment compensation represent distinct projects, it is reasonable and almost inevitable that they be financed by distinct taxes. But the provision of two separate taxes to provide old-age benefit funds suggests an intention that such funds should represent joint contributions from employers and employees. If this is a fair observation concerning legislative intent, it

[9] This would be hardly possible without a federal unemployment compensation tax on employees. Those states which have adopted such taxes have apparently reasoned that the employee should make contribution to reserves created for his benefit. This implies a sorry ignorance of the incidence of employer taxes, as we shall see in the next section.

[10] *Annual Report of the Secretary of the Treasury*, 1946, p. 572.

[11] The appearance of the social security employment taxes in the thirties generated a great deal of interest in the question of their incidence, and consequently some significant additions to incidence literature. Notably good selections from that literature are the following: J. K. Hall, "Incidence of Federal Social Security Pay Roll Taxes," *Quarterly Journal of Economics*, November, 1938; Russell Bauder, "Probable Incidence of Social Security Taxes," *American Economic Review*, September, 1936; Eveline M. Burns, "Financial Aspects of the Social Security Act," *American Economic Review*, March, 1936; S. E. Harris, *The Economics of Social Security*, McGraw-Hill, 1941, Part III.

is reasonable to assume legislative expectation that the two taxes would carry separate incidence. It appears that incidence of the wage tax upon employees was expected to be upon employees, encouraged by the procedure of employer deduction of the tax from the employee's wages on pay day. On the other hand, the incidence of the payroll tax on employers was expected to be upon them, payment to be made out of the profits of the firm.

Such a view of incidence assumes, however, that none of these taxes is shifted. Yet one or more price vehicles are available in the case of each of the social security taxes. The tax deduction from the worker's pay could conceivably result in an increase in basic pay, so as to shift this tax forward. Employer taxes based upon payrolls could conceivably be either shifted forward in the price of the product to the buyer, or backward in reduced payment to one or more of the factors of production. The problem of incidence is to determine which of the three possible groups—employers, employees, consumers—actually does (do) bear these taxes. We consider first the old-age benefits tax upon the employee. One per cent of his wages is deducted as earned; the impact of the tax is thus upon labor's wages in the first instance. There are several good reasons for believing that little forward shifting occurs in the typical case. The first reason is that, the tax being quite general in application, there is practically no possibility of escape from it by migration to another job. Virtually the only possibility of avoiding incidence of this tax is to migrate into a type of employment exempt from its payment. The tax-free employments are not sufficiently extensive to provide the possibility of serious migration, and occupational and other aspects of labor immobility would further prevent the likelihood of such migration. For this reason there is little probability of a decrease in the supply of labor in taxed employments. And it is especially unlikely that the tax would result in any noticeable withdrawal of workers from the market. Thus a long-run tendency for wages to rise in taxed employments as a result of migration or voluntary idleness is unlikely.

The second reason is that the tax provides funds for retirement income of laborers, partially eliminating the need for private saving for old age. Recognition of this fact by the worker is likely to weaken

any determination he might have otherwise had to try to shift the tax to his employer. In many instances the social security tax is but a substitute for private saving from current income, and thus the incidence of the tax involves no new or additional burden upon the worker. And even when voluntary saving had not occurred previously, the forced savings plan of social security may be accepted by the worker as coercion to do only what he should have been doing. Many workers consider the insurance to be worth more than its cost. Our point here is that the purpose for which the funds are used tends to weaken the urge to attempt to shift the tax to the employer.

A third reason for believing that the incidence of the tax is upon the worker is that the tax itself is small. A one per cent tax on wages typically somewhat above a subsistence standard hardly justifies agitation for a wage increase. It is doubtful that even the often-postponed 3 per cent tax would generate much pressure for an attempt at forward shifting. Certainly in a typical case the tax deduction from the worker's wages is like a net income tax, since it is hardly of sufficient size to encroach seriously upon his standard of living.

Over all, therefore, we find little possibility of escape from the impact of the tax by transferring to untaxed employment, accomplishing a long-run reduction in labor supply in those firms and thus raising wages. In addition, it is highly unlikely that the size of the tax, the manner in which it is imposed, or the use to which the funds are to be put, would encourage attempts to shift it. Further, it seems generally agreed that among all shares in distribution, wages are least resistant to tax shifting, and thus an attempt on the part of the worker to shift the tax forward would probably be unsuccessful.

The two social security taxes on employers—the unemployment compensation tax of 3 per cent of eligible payrolls, and the (now) 1 per cent tax on payrolls for old-age annuities—are similar in impact and in incidence. We consider them first as if they were but a single tax, later pointing out differences which may condition their incidence. Three possibilities of incidence present themselves: the wage vehicle is present for possible backward shifting, the price of the product to buyers constitutes a possible vehicle for forward shifting,

and if neither were possible the burden of the tax would remain upon the employer as a deduction from his profits. Of these three possibilities it is least likely that the employer will bear the tax. Let us recognize that the combined excises impose upon the employer a tax of approximately 4 per cent of his payroll.[12] If the incidence of these combined taxes were upon profits of employers subject to them, a marked reduction in net profit would occur.[13] Since the tax would involve a heavy burden upon profit incomes, it is unquestionably true that entrepreneurs would make every effort to shift it. It may be granted that, when the tax is a minor one, impact is likely to be an important determiner of incidence. For when the tax is insignificant the person who first pays it is likely to bear it rather than to undertake the process of shifting against inevitable obstacles. But when the tax is large, the effort of shifting is of lesser significance, and he will experiment with whatever possibilities exist for shifting.

Granted that the employer would be anxious to shift this tax, we consider the probable success of the shifting effort. We first consider possible forward shifting through an increase in the price of the product to the buyer. A tax on payrolls obviously bears close relation to marginal costs of production. Taxes paid on the wages of workers are similar to the costs of materials used in production. An increase in marginal costs is tantamount to a decrease in supply, and results in some increase in price. If the demand for the product is relatively elastic, an increase in price will entail major reduction in quantity marketable, and will almost inevitably decrease the seller's

[12] "Approximately," because (1) merit rating systems in use by most states may reduce the rate of the unemployment compensation tax of a given firm, (2) some minor group of employees may be in one of the several exempt classes, and (3) wages and salaries above $3000 per year are untaxed.

[13] In 1944 approximately $66 billion in wages were subject to these taxes. (Social Security Board, *Social Security Yearbook*, 1944, p. 58.) At 4% this would represent a tax of $2.6 billion. It is impossible to determine the combined profits of those firms subject to the tax. However, in 1944 the net income of corporations and of other non-agricultural enterprises totaled approximately $22.0 billion (*Statistical Abstract of the United States*, 1946, p. 270). This figure undoubtedly considerably overstates the profits of firms subject to tax, though even if this figure is taken, the tax would reduce net profits by about 12%.

net income. The resistance of buyers to forward shifting is far less vigorous when demand is inelastic and but slight decline in quantity sold accompanies increased price.

It is doubtful that any serious resistance to forward shifting is to be found in competition from untaxed employers. It is sometimes argued that the existence of untaxed employments will make shifting difficult by taxed employers, since there is no urge to raise prices in the former. But the validity of this argument depends upon the effectiveness of competition between taxed and untaxed employers. In the case of the 1 per cent tax on payrolls for old-age benefits, the principal exempt employers are agriculturalists, governments, nonprofit organizations, and employers of domestic servants and casual workers. The general categories of taxed employments are industrial production, finance, and wholesale and retail trade. Clearly there is little opportunity for substitution of the products of untaxed employers for those in taxed lines. This observation implies that taxed employers will not to any important degree be inhibited from attempting to shift the tax forward for fear of losing their markets to untaxed employers who have no incentive to follow suit. There is somewhat greater possibility of competition between taxed and untaxed employers in the case of the 3 per cent unemployment compensation excises on payrolls. For this tax not only exempts the employments mentioned above, but adds two other completely or partially exempt groups: those employing fewer than eight employees, and whose records for stability of employment are such as to grant them the benefits of lower tax rates under the merit rating system. With the possible exception of the retail and service trades, the employers of fewer than eight persons do not figure large enough in the total picture to offer a serious competitive threat, especially in view of the fact that any marked substitution of their products for those of larger employers would place them in the taxed class themselves. The possibility of competition from those employers with higher merit rating and thus lower tax rate is less clear. The merit rating of a given employer is not likely to be stable over long periods. The impact of cyclical and technological change will probably be stronger in the typical case than the merit rating incentive. It would seem reasonable to expect, therefore, that merit ratings rise

and fall more or less uniformly for large groups of employers. To the extent that this does occur, there is less competitive differentiation among employers at a given moment than might be expected. Furthermore, differences in merit rating at a given moment among competing employers, though they impose different rates of unemployment tax, will frequently entail compensating expense to the highly rated employer. If in the face of cyclical or seasonal decline in sales employment is maintained at a stable level, this stability (and high merit rating) may be attained by the incurring of expense which at least partially offsets the tax rate advantage. And if stability in employment is maintained by hesitancy in adopting technological improvements it is likely that a differential in cost of production partially offsets tax benefits. On the whole, therefore, we conclude that in the case of neither of the employer payroll taxes does competition from lower- or non-taxed employers significantly discourage forward shifting.

It seems clear that employers typically will bear but a small part, if any, of the taxes on payrolls, since these taxes offer essentially the same forward-shifting possibilities as do general taxes on consumption. We have still to consider, however, the possibility that such taxes may be shifted backward to the workers in reduced "take home pay." The general consensus of those economists who have written on the subject appears to be that backward shifting of the employer taxes is the most likely of the various alternative possibilities. The reasoning leading to this conclusion is essentially the same as that which concludes that the incidence of the income tax on the laborer's wages rests with him. That is, the same reasons why the worker cannot shift his wage tax forward explain why his defenses against backward shifting of the employers' taxes are weak. The first of these reasons is that workers cannot shift from taxed to untaxed employment in order to avoid acceptance of incidence. If such migration were possible the supply of labor in taxed employments would decline, and the wages of those remaining could rise to include the tax. But all of the factors contributing to labor immobility militate against migration, and particularly the fact that entrance into the exempt employments would involve occupational change. In addition, the area of untaxed employment is relatively small as

far as the aptitudes and training of the average covered laborer are concerned. Finally, migration to untaxed employment means migration to employment not covered by the benefits of old-age insurance and/or unemployment compensation.

A further reason for believing workers to be liable to the incidence of payroll taxes is that these taxes do not increase the demand for goods in general. Thus the demand for labor in general would not increase. On the other hand, attempts to raise prices to shift the tax forward would result in some decline in output and in employment. Under conditions of labor competition and typically inelastic labor supply the new equilibrium would be expected to occur at lower net wages, and the tax in the long run would be shifted backward.[14] There are always, of course, short-run qualifications of the conclusion that the employer payroll taxes are largely shifted to labor. Producers under cost-plus contracts (*e.g.*, in wartime production for government) can generally shift these taxes forward in the price of the good. Likewise, in boom periods of labor shortage and great demand for products there will be less resistance to forward than to backward shifting.[15] And at the time of institution of payroll taxes on employers existing wage contracts will prohibit backward shifting for the duration of those contracts. Undoubtedly in the long run more effective bargaining organization by employees will shift a larger share of the tax to unorganized buyers of the product.

A final reason to expect general backward shifting of the taxes is found in the use to which the funds are put. We have already noted that migration from taxed employment to untaxed employment will be hindered by labor realization that such migration terminates rights to social security benefits. This fact may be generalized, to indicate that labor's resistance to backward shifting is weakened by general feeling both by labor and by the public that

[14] Neither the size nor the duration of unemployment benefits is sufficient to encourage permanent unemployment in preference to absorption of the tax in slightly lower wages.

[15] Conversely, in depression periods, unless there are major public works and work relief programs in operation, labor's defenses against backward shifting are weak, while low demand for goods makes buyer defenses against forward shifting strong.

the benefits of social security accrue to labor and that the major part of the expense should therefore be borne by labor. And if it is commonly agreed that the incidence of all such taxes *should* be upon workers, there is greater likelihood that incidence *will* be upon them.[16] In summary we find the incidence of the social security taxes to be principally upon employed workers. The wage (income) tax deducted at the time of wage payment is clearly upon the wage-earner. The two excises imposed upon employers and measured by their payrolls differ in two principal respects: (1) the unemployment compensation tax is by a considerable amount more severe than the old-age benefits excise, and (2) the former partially or completely exempts some wages not exempt under the latter. It is believed, however, that neither of these nor a combination of both has significant effect upon incidence. It seems clear from the evidence, though admittedly the conclusion involves weighing tendencies against one another, that the major part of the incidence of the excises is upon employed labor in the long run. The remainder of incidence is upon buyers of the products sold and upon the sellers, the major share of this remainder being upon buyers. These are generalizations which do not ignore the fact that the lines of least resistance to shifting vary among firms, among industries, and with changes in cyclical conditions. It is worth observing that historical conditions have been such as to strengthen the analytical conclusion that incidence is principally upon labor. The social security taxes originated during a period of rising wages and retirement of governmental relief programs. Such conditions make absorption of the taxes by labor more likely. And once shifted, so that tax incidence is merged in going wage rates, the friction of tradition makes for permanence.

[16] Common presumption that the burden of financing social security should be wholly upon the worker is not to be taken as clear evidence that this is where the burden logically belongs. Since unemployment is likely to be a serious problem principally as an effect of the business cycle, such a presumption implies that labor as a class is responsible for its occurrence. This implication is clearly unreasonable. And it would be very difficult to demonstrate that old-age dependency in the absence of retirement annuities is wholly the fault of labor. Maintenance of over-age and unemployable workers is obviously a cost to be borne by the economy which leaves them at termination of employment without adequate financial reserves of their own.

Social Security Taxes in the Revenue System The titles of the Social Security Act providing respectively old-age benefits and unemployment compensation have exclusively claimed our attention in this discussion because they provide special taxes for their financing. It is desirable, however, to outline briefly the larger connection between the tax collections, the payment of benefits, and the handling of funds, in preparation for study of the compensatory aspects of the social security system. The major part of unemployment compensation excises upon employers is collected by the states and deposited to the credit of the particular state in the federal Unemployment Trust Fund. The Unemployment Trust Fund is invested by the Social Security Board in United States government securities, and interest on these investments is paid to the Fund by regular appropriation of Congress. The old-age benefit system is wholly federal; the taxes on employers and employees are paid into the Old Age and Survivors' Insurance Trust Fund, and benefits are paid from the Fund. This Fund is likewise invested in Treasury securities.

Both plans aim to accumulate reserves in good times which may be later drawn upon for benefit payments. In the case of unemployment compensation it is admitted that unemployment is not an "insurable risk," since there is no such thing as an unemployment experience pattern which may be depended upon to repeat itself. The plan calls for payment of benefits only so long as the reserve funds are adequate, and although the federal government might feel compelled to carry on benefit payments if state funds became exhausted, the law does not provide for it. The reserve fund for old-age benefits contemplates accumulations for a period in excess of withdrawals, so that as the average age of the population increases benefits may be paid from the reserves to supplement current tax collections. Analogy with private insurance breaks down further when we recognize that benefits are not paid according to contract but according to law. The amount of the benefit paid is determined by the wage history of the beneficiary, and not his individual contributions to the funds. (Since contributions are based on wages there is some rough relation of contributions to benefits, but the relation is by no means as precise as in private insurance.)

The absence of correlation between individual contributions and individual benefits suggests that these two social security programs have little in common with private insurance contracts. They are more logically considered as of the same pattern as state highway expenditures, where special taxes on motorists are covered into a special highway fund, which is then utilized for highway construction and repair. If the highway fund is inadequate to finance a road-building program the difference is provided by appropriations from the general fund. Both social security programs provide for the building of surplus funds in favorable times and their use when required to meet legislated benefits. It is highly likely that the states would provide considerable amounts of general funds if the unemployment compensation reserve fund were depleted. And it is equally probable that deficiencies in the old-age reserve account would be made up from the general funds of the federal Treasury before benefit payments were reduced.

In the case of the latter, failure of Congress to impose old-age taxes at rates contemplated in the original reserve scheme can reasonably be interpreted as acceptance of a part of the old-age obligations as a charge upon general revenues. There are, indeed, those who oppose the accumulation of reserves for payment of old-age benefits. They reason that each generation should and does take care of its aged. When current old-age taxes equal current benefit payments this is clearly being done. But even under the reserve plan the same results occur. For a current excess of tax receipts over benefit payments increases the Old Age Trust Fund, which like the Unemployment Trust Fund, is invested in Treasury securities at current interest rates. The borrowing of these surplus funds by the Treasury makes possible their use for the payment of general government expenses. As a matter of fact, therefore, collection of social security payroll and wage taxes in excess of current benefits provides funds for general expenditure, while in the future if current taxes are inadequate to meet benefit obligations the difference must come from general revenue sources.[17] Thus each

[17] It does not follow, of course, that use of surplus funds for general expenditure represents a betrayal of trust. It has been argued in presidential campaigns since 1936 that an irresponsible government squandered social security re-

generation does care for its aged and unemployed, whether or not reserves are accumulated. The reader will note that this is also true whether the social security scheme is governmental or private. For consumption at any time is made possible by current production.

COUNTER-CYCLE SOCIAL SECURITY TAXATION

The social security payroll taxes are among the most regressive of all taxes in their economic effects. Their incidence is principally upon the lower-income wage-earning class and to a much lesser extent upon consumers. They are peculiarly regressive in terms of income because they are proportional to wages only up to $3000 per worker. Since wages represent substantially the whole income of the typical wage-earner it is as if the taxes were at flat rates on income up to $3000 and at zero rate above that level. The long-run implications of such taxes for the general level of consumption in the economy are therefore clear, and they operate precisely in the wrong direction. The inauguration of the social security taxes thus introduced a significant element of regression into the tax system as a whole.

Granted their persistent long-run downward pressure on the level of consumption, their burdens become more intense in depression than in prosperity. This is true in spite of the fact that no payroll taxes are paid by or for the unemployed worker. But little comfort can be taken from unemployment as an escape from the tax. And for those who remain employed, probably at lower wages, the flat rate of tax imposes a heavier burden. Added to this is the fact that in depressed markets and with extensive unemployment the resistance of consumers to tax shifting strengthens while the resistance of workers weakens. Thus less forward shifting and more backward shifting of the taxes onto employees is likely.

On the other hand, the old-age security and unemployment com-

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serves on "boondoggling" projects. If this were not true, why do the social security reserves contain nothing but government debt? The implication of fraud is, of course, absurd, for it could be made with equal force against all private insurance companies, whose cash holdings are always less than their legal reserves. So long as the obligation to pay benefits is honored and revenue resources are sufficent to support the obligation, it would be utter folly to accumulate huge reserves of cash.

pensation programs offer one of the few opportunities for reasonable application of the benefit principle in taxation. For a large share of the benefits of these programs accrues to individual insured workers. And since these individual benefits are in the nature of cash payments, there is no difficulty involved in measuring the amount of benefit in the individual case. In fact, it is reasonable to consider the social security tax payments as the approximate equivalent of prices paid for insurance services. So considered, the regressiveness of the payment is of less concern than would be the case if such taxes were simply covered into the general funds of government and used for general governmental purposes.

At the same time, there are important elements of general social benefit—as distinguished from individual benefit—in such social security programs. Prevention of dependence of the aged and the unemployed, and maintenance of a higher level of consumption, are objectives in the general good. It is therefore logical that something less than full reserves be accumulated out of payroll taxes, and that the remainder be a charge upon the general funds.

Though social security taxes upon workers' wages are regressive, their burdens are distributed roughly in accordance with the distribution of social security benefits. And there are definite morale advantages in making the worker feel entitled to his benefits because he has paid for them. Further, the assumption of a major part of the expense of the program by its beneficiaries may well serve to discourage irresponsible drives for extension of the benefit system beyond the limits established by the productivity of the economy. There thus appear to be reasonable grounds for continuation of the system of tax contributions by those who stand to benefit individually. However, such a system offers little opportunity for counter-cycle adjustment of the payroll taxes, except as employment and wages vary through the cycle and thus possess some elements of built-in adjustment. With respect to such adjustment it is fortunately not likely that tax collections in recession and depression will approach the volume of benefit payments, and therefore income-generating deficit spending will automatically occur. And in prosperity, tax collections will almost inevitably exceed benefit payments. Such further adjustment to cyclical conditions as is needed—and far more will be needed—

should come from outside the social security program. That is, other governmental expenditures and other elements of the tax system must provide elasticity sufficient to offset the rigidities of the social security program and to bring the whole fiscal system into appropriate balance with respect to counter-cycle requirements.

We turn now to a brief description of two kinds of taxes whose importance earns for them only brief mention. Though of minor significance, they should not go unmentioned; on the other hand, each is peculiar to itself, defying classification along with any of the major taxes previously discussed. We therefore bring them in at this point, as miscellaneous taxes briefly discussed at the end of our survey of tax types.

POLL AND CAPITATION TAXES [18]

The principal taxes of local governments in the early period of American history were those on "polls and rateable estates." The later was the property tax, while the former was a flat amount levied upon persons. The term "poll tax" has become more common than "capitation tax" or "head tax," because it implies the usual limitation of the tax to those of voting age. At the time when the poll tax was established there were several reasons for limiting its application to mature males. In the first place its proceeds were devoted largely to road construction and maintenance, and in a period when money was scarce taxpayers were generally allowed to "work out" this tax in labor on roads. Mature males only could be expected to possess ability to pay in road work, ability being measured in terms of capacity for hard physical labor. The limitation of the tax to those of voting age suggests also a rough form of application of the principle of ability to those who would pay in money. For most persons under twenty-one would not be financially independent.[19]

[18] A good short description of these taxes, with bibliography, is presented in Carl Shoup's article, "Poll Tax," in the *Encyclopaedia of the Social Sciences.*

[19] In approximately one-third of the states the poll tax can still be paid in cash or in road work. The latter, however, is attractive only to the very impecunious, since this labor carries very low value for tax purposes. In 1938 the highest maximum rate at which the tax could be "worked out" was $2 per day. Louisiana counted road work as worth 50¢ per day for tax purposes. Payment in labor is discouraged principally for the reason that modern

In the second place, taxation without representation was unpopular, and a person who was not old enough to vote could not justly be required to pay a personal tax. Finally, in some states, payment of poll tax was prerequisite to possession of the voting privilege, and the intention was to deny the franchise to certain groups.[20] There was obviously no object in erecting a poll tax barrier to voting by those who were already denied the franchise on other grounds.

The poll or capitation tax is now employed principally by local governments. In 1946 the tax was administered by and for only one state government. In thirteen states it was a county tax only, in fourteen states a city, town, or village tax only, and in eleven other states it was employed at more than one level of local government.[21] The uses to which poll tax revenues are put have shown little change. Earmarking of such revenues is still very common, and what began as a road tax has since been devoted to few additional purposes. Though very recent data are not available in useful form, it is doubtful that marked changes have occurred since 1937, when the poll tax was employed in forty-two states.[22] Among local governments in those states, roads laid principal claim to poll tax revenues, with schools a strong second. The general funds fared badly with respect to participation in these revenues.

With few exceptions the poll tax is badly administered by local governments. Its revenue productivity is small at best, generating little enthusiasm for careful administration. In many localities its administration has been so down at the heels for so long that evasion has become a major sport, in the supposedly harmless nature of "cops and robbers." The very tradition of poor administration has generated so general a disrespect for the poll tax that improvement

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methods of road construction and maintenance can hardly make good use of many miscellaneous, untrained, and out-of-condition laborers.

[20] Rates of poll taxes in 1946 ranged from a figure of $1 per poll in many localities to a maximum of $16 in Louisiana. With some exceptions the rates of tax (combined state and/or county and/or municipal) in the southern "poll tax states" are considerably higher than elsewhere.

[21] *Tax Systems*, 10th ed., Chicago, Commerce Clearing House, 1946, pp. 261–4.

[22] It was prohibited in four states, and permitted but not used in two others. (*Tax Systems of the World*, 7th ed., Chicago, Commerce Clearing House, 1938, pp. 174–5.)

of its administration is doubly difficult. And finally, in a large section of the United States, evasion of the poll tax is quite generally desired for political reasons, since failure to pay the tax disqualifies the person from voting.

Were it not for the political and social implications of its use to withdraw the franchise from large numbers of citizens, and for the fact that a spirit of evasion with respect to one tax is easily communicable to other taxes, the general failure of the poll tax would be cause for rejoicing. For in terms of tax theory it is a bad tax. Its base is the individual person, and not his income or any near or distant relative of it. All persons subject to the tax pay the same amount. It is thus regressive with respect to personal income. Its incidence is simple; the payer of the tax bears its incidence, as there is no price vehicle for either forward or backward shifting. But though its continued existence is anachronistic, its long history and the lightness of its burden upon those who principally mold policy combine to offer little hope of its general abandonment.

THE UNJUST ENRICHMENT TAX

The Supreme Court decision in *Butler* v. *United States* (1936) voided the first Agricultural Adjustment Act and the taxes imposed by it upon the processors of certain agricultural products. The decision created real confusion concerning the status of some $200 million of taxes impounded pending decision of the case, and some $1 billion of taxes collected since 1933 and spent for agricultural benefits under the Act. Almost immediately a series of court orders and decisions directed the return of impounded taxes to individual processors who had paid them under protest. Clearly a difficult situation was presented. In general, it was correctly assumed that substantially the whole tax had been shifted forward to consumers in increased prices. Thus, the processors legally entitled to a return of impounded taxes had, in general, already been reimbursed by buyers of their products, and the return of impounded taxes would create a nearly pure windfall.[23] Furthermore, those firms which had paid their taxes without protest were apparently not entitled to re-

[23] One firm would have been entitled to refund of approximately $4 million.

fund. The return of these impounded taxes would thus create grave injustices between producers and consumers, and among producers. Clearly it was impossible to find those who had borne the incidence of the impounded taxes, even if return of the funds to them could have been made legal. And the same problems existed with respect to the billion dollars in taxes formerly collected and already spent, although their return had not been ordered.

At the request of the President, Congress passed the Unjust Enrichment Tax, designed to recoup returned taxes, as well as to settle the larger problem of taxes paid without protest. The measure provided for a flat rate of 80 per cent upon the net income of any person or firm, arising from: (1) Any federal excise tax imposed but not paid (this was to recover taxes added to price prior to the court decision but not paid to the Treasury); (2) any reimbursements to a taxpayer by persons who sold goods to him when the taxpayer shifted the tax forward (such cases would infrequently occur; they might occur when a processor or wholesaler was a party to suit against the Act and had carefully arranged to bear the tax); (3) any refunds of shifted excise taxes improperly or illegally collected (this provision was to recoup impounded taxes as well as to forestall suits to recover processing taxes which had previously been paid without protest).[24] Although the law was drawn in general terms to cover all federal excises, it was specifically directed toward the processing taxes.

The law was probably effective in discouraging litigation which if successful would have created "unjust enrichment," though the tax produced little revenue. The Treasury estimated in 1936 that approximately $82 million in revenue would be received from the tax in 1937 (the only year in which it was expected to produce revenue),[25] though receipts were actually but $6 million in that year.[26] By Congressional resolution in 1937 the Commissioner of Internal Revenue was empowered to extend the period of payment, and in 1947 payments are not yet entirely complete. Nevertheless, the total of collections to the end of fiscal 1945 amounted to only

[24] *Cf.*, Title III, *Revenue Act of 1936*, for provisions of the law.
[25] *Annual Report of the Secretary of the Treasury*, 1936, p. 385.
[26] *Ibid.*, 1937, p. 208.

about $43 million, and in that year payments had dwindled to $180 thousand. The meagerness of revenue collection under the unjust enrichment tax was due primarily to the fact that the major part of the impounded taxes was paid by firms which could show that the incidence was upon them. They therefore received refunds of processing taxes but were not subject to unjust enrichment taxes.

It may be inquired why we devote attention to a tax of such insignificance with respect both to life span and to revenue productivity. Granted that the unjust enrichment tax has played a very minor role in the fiscal system, it is nevertheless interesting for two reasons. First, it represents a new departure in taxation, using a tax measure to pick up specific windfall incomes regarded as socially unjust or undesirable. As such, it may prove to be a useful tool with which to meet in the future a fairly wide range of situations.[27] But more important, the use of such a tax involves application of specific conclusions as to the incidence of other taxes. The tax of 1936 was constructed upon the assumption that processing taxes were shifted by sellers. Any other interpretation would deny the "unjustness" of the enrichment. It is interesting to note the legal treatment of the economic concept of incidence, for the law was required either to accept a simple hypothesis with respect to incidence, or to set up a workable measure of the degree of shifting in the individual case. Actually it did the latter, though with reservations. The extent to which the tax was shifted was computed by comparing the seller's margin while the tax was imposed with his average margin on the

[27] For example, in early 1947 its revival was tentatively suggested in connection with the frightening portal-to-portal pay suits. Though the portal-to-portal flurry quickly disappeared, there was for a time concern lest the legality of suits claiming retroactive pay would severely affect the condition of the Treasury. For if wage claims totaling approximately $5 billion had been judicially upheld, the Treasury could have been affected in two ways. Firms required to pay heavy wage claims could in some instances establish claims for refunds under the excess profits tax, by carrying back loss credits against excess profits taxes paid during the war. Also, it is conceivable that some cost-plus war production contracts would require re-negotiation at higher prices on the findings of increased labor costs. The temper of the Congress would very likely have defined retroactive portal-to-portal pay as "unjust enrichment."

same good in the same quantities for the six years immediately preceding imposition of the tax. The seller's margin was his selling price per unit less the cost of the good per unit to him. In the case of the manufacturer, cost meant cost of material only; in the case of goods purchased for resale, cost was simply the price paid for the good at the time of purchase. For example, suppose that during the period 1927–33, the seller had had an average margin of 20 cents between the cost and selling price per unit of his product. Suppose that in 1935, his product then being subject to processing tax, his margin had risen to 23 cents per unit, assuming comparable quantities in the two periods. The difference in margin is 3 cents and if the processing tax on the taxed-commodity-content of his good were 4 cents per unit he would have been assumed by the law to have shifted three-fourths of the tax and borne the other fourth himself. He would be entitled to keep one-fourth of these processing tax payments returned to him, but three-fourths of the refund (less cost of obtaining the refund) would be subject to unjust enrichment tax. This was, of course, only a rough and ready measure of the degree of tax shifting. It takes little account of a host of variables affecting the firm's demand and costs. The improvement in the general demand situation between 1933 and 1936 might well have brought a natural increase of margins irrespective of the tax. But any less simple measure of shifting would have multiplied administrative difficulties, and a recognition of its lack of precision is reflected in a tax rate of 80 per cent rather than 100 per cent.

RECOMMENDED READINGS

Burns, E. M., "Financial Aspects of the Social Security Act," *American Economic Review*, March, 1936, p. 12 ff.

A short paper dealing with the broader financial problems in allocation of social security burdens.

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Survey of theories, with readable analysis of incidence.

CHAPTER 24

COORDINATION OF TAX SYSTEMS

Our analyses of particular tax measures in the last several chapters have indicated need for major improvement in some taxes and elimination of others. In this chapter we bring together various suggestions for improvement which have been mentioned previously, but particularly our objective is description of what might be called an integrated revenue system and of the obstacles to integration. In an over-all sense we are justified in speaking of this integration as principally a process of simplification. Many of the complexities of modern taxation are the result of illogical and opportunist growth, and a return to simplicity is a return to common sense.

THE CASE FOR SIMPLIFICATION

A catalog of the principal inadequacies of modern tax systems in the United States would emphasize those listed and described below.

1. *Miscellaneity* The principal types of taxes employed by the different levels of government are the following, in order of importance:

FEDERAL	STATE	LOCAL
Personal income taxes	Sales taxes	Property taxes
Corporation income taxes (including excess profits)	*Employment taxes*	
Excises	Corporation income taxes	
Employment taxes	*Personal income taxes*	
	Property taxes	

Even a listing by larger categories indicates the miscellaneous nature of modern tax systems. It is virtually impossible to cut through the maze of tax measures toward any real understanding of the nature of tax burdens as they relate to ability to pay. This is particularly evident when we realize that measures which belong in the same general category may have quite differently defined bases, and that there is a wide range of variation in the types employed by the various states. Under such circumstances the accomplishment of a reasonable degree of over-all tax justice is largely accidental. For to the average legislator incidence, if regarded at all seriously, is only vague and highly generalized. And just or economic allocation of burdens is usually contemplated only with respect to the various payers of a given tax; little consideration is given to allocation with respect to that government's tax system, and virtually none to reasonable allocation of revenue burdens imposed by all governments combined. In addition, such a miscellaneous and unintegrated collection of tax measures makes difficult the administration of the tax system as an instrument for the creation of appropriate economic climate. In the large, the modern tax system is a blunt and unprecise instrument for either the production of revenue or the influencing of disposable income in the economy.

2. *Duplication* This list of principal taxes on page 572 indicates considerable duplication of effort in the administration of essentially similar taxes. It portrays duplication and uneconomic waste to the taxpayer in meeting requirements for compliance with many rather than a few tax measures. It exhibits independent and unrationalized application of taxes upon the same base at more than one governmental level, resulting in quite haphazard distribution of burdens. But above all, it reflects the untenable presumption that the diffusion of original impact of taxes among various tax bases results in a diffusion of final burdens. It is painfully characteristic of tax legislation to assume that the discovery of a heretofore unused tax base constitutes the discovery of a new and unexploited ability to pay. We need constantly to remind ourselves that, no matter how heterogeneous the points of original impact, tax revenues are eventually drawn from the stream of personal income.

3. *Regressiveness* Only a tax levied at *progressive rates* upon the whole of net *personal income* is a tax in harmony with the principle of ability to pay. Most taxes levied at proportional rates are regressive with respect to ability, while progressive rates applied to bases other than the whole of personal net income either compromise or defeat the ability principle.[1] A glance at the list of major tax measures now in use will make apparent to the reader that the ability principle is badly implemented in modern tax practice.

4. *Intergovernmental Competition* A considerable degree of duplication in the use of certain revenue measures is evident. On the other hand, there is a striking absence of duplication, particularly in major emphasis, among different levels of government. Certain "preserves" have become established for certain levels of government: income taxes for the federal government, sales taxes for states, and property taxes for local governments. A certain touchiness on the part of government at a given level with respect to encroachment upon its tax preserve by government at another level is observable. These preserves are established by what is regarded as preemption (*e.g.*, heavy federal taxation of personal incomes), by constitutional protection (*e.g.*, prohibition of federal taxation of property), or by "squatter's rights" (*e.g.*, local use of the poll tax). At times these preserves are successfully invaded and appropriated by brute force, as in the case of transfer of dominance in death tax matters from state to federal government. In general the "separation of revenue sources" is maintained by sufferance of the small by the great. Since revenue appetites are seldom satisfied at any governmental level, governments with small revenue power exist in constant fear of loss of what are to them important revenue measures. They are required to subsist upon what is left in the kitchen, while the work they are expected to do may demand more substantial

[1] It is true that some taxes with proportional rates are progressive in terms of over-all ability. A proportional tax on interest and dividends may well be progressive in effect because such types of income represent an increasing proportion of total income as we proceed up the income scale. Proportional excises on luxury items may have roughly the same effect. But none would argue that such indirect approaches to taxation according to ability can compare in dependability with a progressive personal income tax.

fare. For example, state governments have appropriated to themselves revenue resources more rapidly than they have assumed the functions of local governments.[2] And the federal government has in the last two decades effectively forced upon state governments new functions in the welfare area concurrently with a marked increase in the severity of federal taxation. Although the federal government has extended major financial assistance, these new functions have considerably increased state expenditure budgets. And the states, having instituted new services under federal pressure, cannot be certain of the continuance of federal grants at high levels.

The picture may appear darker than it is. Although the above description of the situation corresponds in general with the view of state and local governments, there are mitigating aspects. It is fortunate, though to a degree accidental, that the greatest expansion in governmental expenditures has been financed at the federal level, through federal undertakings and federal grants to the states. For the principal tax measures utilized by the federal government are far superior to those utilized by the states. Even the federal corporation income tax, with all its faults, comes closer to ability to pay than do the sales taxes and excises of the states. And the danger of withdrawal of federal financial support of state functions is probably less than is frequently imagined by state officials. Nevertheless, the fact remains that a disorganized scramble on the part of all governments for new revenue is likely by its results to demonstrate the superior power of the federal government over the states, and of the states over local governments. When each pursues its own interest without reference to the others, either of two potentially serious results may occur: (1) expenditures are made by that government whose tax resources or whose credit is stronger, without reference to the relative importance of those functions which less financially privileged governments would carry on if their finances allowed; or (2) the various governments pursue their own courses, taking revenue where they find it, to the discomfort or certain groups of taxpayers who find ostensibly different taxes bearing down upon their income from various directions. Whether or not this problem is possible of solution

[2] *Cf.* M. M. Davisson, "State Financial Assistance to Local Governments," *Proceedings, National Tax Association,* 1939.

under our multiple system of government is a matter of real concern. The problem exists, and can be solved only by major simplification of revenue systems.

As we have seen, a very respectable attack upon the problem of simplification can be made by simplification of individual tax measures by individual governments. Vast improvement of the property tax by local governments is possible by exemption of intangibles, exemption of those items of tangible personal property concerning which assessment practice is inadequate, and improvement of the system of assessing real property.[3] At the state level, more effective budgeting of expenditures—wholesale elimination of financing by special funds—would make heavy dependence upon sales taxes and excises less necessary, while there is room for both more extensive and more intensive use of the personal income tax. And at the federal level, many improvements looking toward more simplification and more justice in the income and estate taxes are possible.[4] Many experts believe that the only real possibilities for improvement lie in the "nibbling" process—*i.e.*, improvement of their own tax measures by individual governments, and ironing out by reciprocity or mutual understanding the difficulties which appear at points of particular conflict between governments.[5] The development of reciprocity among the states in the matter of multiple death taxation of the same intangibles has largely eliminated what was formerly a glaring evil. And cooperation among states in determination of formulas for allocating uniformly the amount of business of an interstate concern subject to the business tax of a given state has reduced the extent of multiple business taxation. There would appear to be marked possibilities for promoting awareness of state and local fiscal problems on the part of state delegations in the federal Congress.

Important as the nibbling process may be in eliminating particular trouble spots in the fiscal relations between governments,

[3] See Chapter 15 for discussion of this matter.

[4] See Chapters 16, 17, 18, and 21.

[5] For example, Professor Groves says, ". . . the preoccupation of the critics with grandiose plans for fiscal coordination may account in part for the rather low score of achievement to date." ("Intergovernmental Fiscal Relations," *Proceedings, National Tax Association*, 1942, p. 105).

this process offers little hope toward solution of the larger problems of simplification and coordination of fiscal systems. The major over-all revenue problem is that of properly financing desirable governmental functions at all levels with revenue measures which meet the requirements of burden allocation along lines of ability to pay. Thus, simplification of the over-all tax system is indicated, with concentration upon tax measures which best justify their use. But there is a further requirement: the economic consequences of taxation in terms of levels of income—*i.e.*, the functional possibilities of taxation—once recognized and understood, need to be harnessed in the service of the economy. Such management implies manageable instruments, whose consequences are known and whose rates and bases are subject to effective adjustment.

The consequences of uncoordinated fiscal systems are clearly evident in certain developments during early 1947. The high cost of living, low salaries offered public school teachers, and opportunities for more remunerative industrial or commercial employment, had created a serious personnel shortage in public education. If public education was to be carried on at a reasonable level, state and local governments were faced with the necessity of offering teachers salaries at least 20 per cent higher than the previous level. This, with other cost increases, meant markedly increased school budgets and the necessity for more revenue. To this revenue requirement were added the high cost of needed public construction, and in many states the financing of generous bonuses to veterans. The search for new revenue left no stone unturned. At the same time, the federal Congress was more or less committed to a significant reduction in income taxes, on the grounds (rightly or wrongly) that the economy required relief from the war tax load. Thus, the prospect of reduction in federal taxes was seized upon by the states as offering an opportunity to take for themselves the taxable funds so released. We are not concerned at this point with the economic propriety of federal or state policy. But the consequences of lack of coordination are clearly seen: accomplishment of the federal objective of tax relief would be to a degree negated by conflicting state and local objectives. This is not an isolated example, but represents a continuing characteristic of uncoordinated fiscal systems.

POSSIBLE METHODS OF COORDINATION

The fiscal case for simplification and coordination is clear. But we are, as in many areas of public finance, confronted with a problem in which there are other than fiscal considerations. In fact, it may well be that the fiscal consideration should take a subordinate position. The lack of fiscal coordination, and the injustices and irrationalities it creates, is itself primarily a product of our form of government. For in the United States, government is intentionally uncoordinated. The degree of fiscal integration depends largely upon governmental structure. In England, for example, government fiscal activities are highly centralized,[6] for the reason that government itself is highly centralized. And in Canada and Australia during the war several state taxes were taken over by the federal government. This was possible because of less rigorous prohibitions upon centralization than exist in the United States, because of less traditional importance of state and local government, and because of a tradition of financing from the top in the form of grants.

Quite clearly the structure of government in the United States is not conducive to integration in fiscal matters. We may go even further; the structure of government is such as to raise serious obstacles to coordination. This is not to say that sovereignty in the states should be swept away. It is simply to point out that one of the real costs of our system of independent sovereignty in the states and a degree of practical independence in local government is that of fiscal complexity, waste, and injustice. Any recommendation for radical governmental change would bear the burden of proof that such costs exceed the social and individual benefits to be derived from decentralization. But it is not appropriate for us to enter into that controversy here.

Without question, simplification and coordination can be rela-

[6] Ursula K. Hicks (*The Finance of British Government*, Oxford, 1938, p. 34) generalized in 1938 that though local authorities spent approximately 30% of the total for the nation, they raised only about 7% of total revenues. The difference is made up principally by grants from the central government. Presumably during the war the relative fiscal significance of local governments declined still further. Such a governmental structure clearly simplifies the problem of coordination.

tively simply accomplished through centralization. Viewed realistically, however, in the United States further centralization, if it occurs, will be of the *de facto* type, accomplished within the framework of divided sovereignty and checks and balances. There are legal limits to *de facto* centralization, and such coordination as is accomplished will be of the informal sort. But within these limits there are real possibilities for coordination in the direction of simplicity and more precise focus. We proceed to a discussion of some of these possibilities.

In the first place, we repeat that individual governments can go a long way toward simplification with respect to their own tax systems. The details of such improvements have been described in our previous analyses of particular taxes. Second, the governmental picture is complicated by the existence of multifarious local governmental units whose principal contribution to government is needless complication. In some parts of the country the county is a governmental anachronism. In other parts of the country the township is of this nature. And almost everywhere there has grown up under local government a multitude of quasi-independent governmental entities for the collection and disbursement of funds. Many towns and villages are themselves governments only in a formal and unreal sense —they can hardly qualify as administratively efficient or as competent to provide a reasonable scale of governmental services. With the development of consolidated schools, large educational grants from states to local governments, and state highway systems, the continuation of many village governments is anachronistic.[7] The reorganization of local government is within the power of the states, since local governments operate under the authority of the state.

Tax administrators in those governments underprivileged in the disorganized scramble for revenue are inclined to believe that the solution to the revenue problem is establishment of tax preserves for the various governments. Thus, in this game of musical chairs, each

[7] To quote from Mabel Newcomer, "The community that cannot afford even one-half the cost of maintaining minimum standards for schools and roads and other local functions should probably forfeit the right to control these activities." ("Fiscal Relations of Federal, State, and Local Governments in the United States," *Proceedings, National Tax Association,* 1940.)

government would be assured of a chair and competition would cease. If such were done by general (but informal) consent, it is presumed that governments of lesser power would be protected from encroachments upon their preserves by more powerful governments. The experience with virtual appropriation of the death tax field by the federal government has led to serious question by the states as to whether this is, in fact, a solution to the problem. For preserves established upon tradition or widespread presumption are not inviolate. More importantly, however, avoidance of a form of taxation by one government because that form "belongs" to another government really makes little sense in terms of income as the source of all tax payments. For the source of taxation may be raided while a specific form of taxation remains untouched. And finally, the system of tax preserves, though it may ration tax forms among governments, is a movement in a direction precisely opposite from that desired. For the objective in intergovernmental fiscal relations should be the creation of a coordinated system which uses the best tax measures to bring in the revenue. The very presumption that the personal income tax is the peculiar property of the federal government leads state and local governments to avoid this desirable form of taxation for something less desirable. It thus creates the complexities to be avoided; it encourages the development of irrational systems the location of whose burdens is quite undeterminable.

A factor of minor significance in reducing the intensity of the effects of tax duplication is that of allowing deduction of other taxes paid from the base of a particular tax. This may be called mutual deductibility. The federal income tax, for example, allows deduction from the tax base of certain other taxes paid, including state income taxes. The states using income taxes do not, in general, allow deduction of federal income taxes paid. There are two reasons for expecting little escape from the effects of duplication even if mutual deductibility were generally practiced. In the first place, little relief is provided in the typical case, for other taxes paid are deducted from the base of a particular tax and not from the tax payable.[8] In

[8] For example, suppose state income taxes to be deductible from the federal income tax base, but not the reverse. Assume a common taxable net income base (without benefit of tax deduction) for both taxes of $2000, an effective

the second place, deductibility is simply not feasible among different tax types. How can income taxes paid be deducted from the base of property, sales, employment, or poll taxes, purely as a mechanical matter? And tax shifting complicates the picture, for we find it practically impossible to administer deduction of other taxes paid except by the person upon whom the original impact of the particular tax falls. What guarantees have we that taxes deducted were actually borne by the person who is entitled to deduct them?

Of the three methods of simplification and coordination thus far discussed, the first (elimination of anachronistic governmental entities under existing powers) would offer possibilities for efficiency in administration of fiscal policy, though it would accomplish little in the direction of elimination of undesirable tax measures. The second (creation of tax "preserves") is likely to be damaging to any possible move in the right direction, for it crystallizes a structure of which bad taxes are likely to be an important part. The third (mutual deductibility) is largely ineffective, and since it deducts bad taxes from good as well as the reverse it does not accomplish desired emphasis upon the use of proper measures. What is needed is a system which raises revenue by proper means and disburses revenue for proper purposes. This is the essence of the objectives of simplification and coordination. The accomplishment of these objectives would be much more simple were it feasible to simplify and coordinate governments—that is, centralize governmental authority. But lacking that probability, there are but three possibilities remaining. These are tax-sharing, grants-in-aid, and the creation of uniformity in fiscal points of view among the various governments.

Tax-sharing may take two forms. The first is the form of centrally collected, locally shared taxes. It is feasible under our governmental structure only between state and local governments. The

federal rate of 20%, and an effective state rate of 2%. If there were no deductibility the combined taxes would be $440, or 22% of $2000. When state income taxes paid ($40) are deductible from net income under the federal tax, the combined taxes are $432. This is made up of $40 state tax (2% x $2000) and $392 federal tax (20% x $1960). The tax saving resulting from deductibility is $8. The saving is not the amount of state tax paid, but that proportion of it equal to the federal tax rate—*i.e.*, 20% of $40.

state levies and collects the tax, and then distributes some portion of the proceeds back to municipal or county governments. This movement has grown in recent years, partly to improve the quality of tax administration, partly to provide new revenues for local governments whose functions could not adequately be supported by property taxes, and partly to provide local property tax relief. The taxes most frequently shared are those on gasoline, with considerably less widespread sharing of liquor revenues, sales taxes, and income taxes. Income taxes are now shared only when they have been instituted for the purpose of property tax relief. Though centralized administration typically improves efficiency in collection, it can be seen that the emphasis in sharing is upon the more regressive types of taxes. This being the case, little contribution is made toward solution of the general problem of imposing the right taxes.

The second form of tax-sharing is that of allowing credit against a particular tax of other taxes paid. This practice is exemplified in the credit against the federal estate tax of 1926 of 80 per cent of state death taxes paid, or in the credit against the federal unemployment tax of 90 per cent of state unemployment compensation taxes paid. These are examples of genuine sharing of revenues between sovereign governments, and indicate a practical method of revenue coordination in the direction of simplicity. Its weaknesses lie in the fact that it is essentially a unilateral action. The government superior in fiscal power determines both the taxes under which credits will be allowed and the size of those credits. By its superior power it can effectively impose its will upon inferior governments by making it financially suicidal for them not to fall into line. Provided the right taxes are chosen, as in the case of the estate tax, such action clearly contributes to an over-all improvement in the tax system. Probably the most significant forward step which could be made in coordination of revenue systems would be that of providing a state income tax credit against the federal income tax. This could be an effective means of halting the state trend toward regressive sales taxes, and in providing the states with revenues which would make possible the elimination of elements in already highly regressive state tax systems. It must be confessed that the rise of federal supremacy in fiscal matters has not been accompanied by a marked

sense of responsibility, either for ironing out injustices in its own tax measures or for promoting sensible coordination of its revenue system with those of the states. Nor is federal action in the case of the estate tax credit likely to engender confidence on the part of the states that they can afford to hitch their wagons too securely to the federal star.

A system of grants-in-aid offers real possibilities along the line of financing activities at various governmental levels by centralized administration of appropriate tax measures. The advantage of grants over the system of tax credits described above lies in elimination of duplication in revenue administration. For in the case of tax credits, both governments administer separate, though similar, tax laws, while in the case of grants the whole tax is centrally administered and its proceeds shared. The possible disadvantage of grants as major sources of revenue are: (1) the amount of revenue received by the grantee is determined by the grantor, and (2) the grantee typically has its area of free choice as to expenditure limited by the grantor's conditions. If we could assume that fiscal wisdom and understanding were always directly proportional to fiscal power we could embrace grants-in-aid as representing the major promise of salvation from our present confusion. To date we may observe that grants have afforded net improvement in the fiscal system. They have uniformly been utilized to promote necessary standards in performance of important state and local functions, and the revenues have generally been raised either by preferable tax measures or by cheaper borrowing than would otherwise have been possible.

As we view in the large the problem of selection and coordination we recognize that in the last analysis it can be really solved under our system of government only by uniform recognition of the fundamental principles of public finance. Recognition of the source of tax payments in individual incomes and utilization of the conclusions which we can now—though imperfectly—draw with respect to final incidence of particular taxes, together with an understanding of the larger effects of taxation, borrowing, and expenditure upon the operation of the economy, constitute the major tools of reform. If these tools are earnestly employed in the construction of

a fiscal system whose objectives are an optimum list of governmental services, the greatest possible justice among individuals, and the highest possible level of income, the obstacles of governmental structure and narrow administrative vision cannot seriously obstruct improvement.

THE NATURE OF AN INTEGRATED TAX SYSTEM

The objectives to be striven for in coordination of federal, state, and local tax systems are two: (1) allocation of total tax burdens in accordance with ability to pay [9] and (2) creation of an over-all system which lends itself to adjustment for compensatory purposes. These objectives themselves suggest several characteristics which the system must possess. First of all, unless the system is simple, unless it depends upon one or a very few different tax types, its incidence will be uncertain. The more complex the tax system the more difficult it is to know the pattern of distribution of its incidence. Second, the system composed of one or a few types of tax measures must concentrate upon selection of those measures whose individual incidence can be predicted with reasonable accuracy. Third, the tax or taxes which constitute the system must be measured by personal income. Otherwise their combined effects upon particular taxpayers can be forecast only with considerable inaccuracy, and their compensatory adjustment will only inaccurately affect the size of personal disposable income. Finally, to lend themselves to effective compensatory employment, they must be amenable to simple adjustment in effective rate upon particular amounts of income.

With these general principles in mind, we proceed to describe more particularly an integrated tax system. In an absolute sense the principles call for elimination of virtually all taxes except those on personal incomes.[10] Personal income taxes would then be utilized

[9] This is an objective in taxation for general purposes. There is place for taxation according to benefit in the case of special assessments for local improvements, where it is possible to allocate individual benefits.

[10] There would still be good reason for retention of sumptuary taxes upon those goods whose purchase it is desirable to discourage, of death taxes, and of those taxes which represent payment for specific governmental benefits, such as social security taxes and special assessments.

at all levels of government—federal, state, and local.[11] And the tax measures at all levels would be computed upon an identically defined personal income base. Quite evidently a system of sharing would be required, so that combined tax rates would reflect ability to pay from incomes of varying size. The sharing of income tax revenues would seem to be accomplished with least interference with the traditional and constitutional independence of states if the device of the federal credit for state income taxes paid were adopted. Sharing with local governments of state-collected income taxes is entirely feasible.

An integrated system of personal income taxation assumes that the income tax itself be applied in a manner which meets the objectives of fair and economic taxation. This implies elimination of the double tax jeopardy in which corporate profits now find themselves. It means the placing of capital gains and losses on all fours with other income and loss. It contemplates the inclusion of undistributed corporate profit as personal income. And it requires the introduction of an income-averaging plan which eliminates unjustly heavy burdens upon fluctuating incomes.

When the income tax is so improved, it becomes a measure in which great confidence can be placed. It should constitute, in a sensible fiscal system, substantially the sole source of revenues. Such a system should be the ultimate objective toward which progress is measured. But as an ideal it is also an objective with which compromise will from time to time be made. It does—assuming federal credits for state income taxes paid and state grants to local governments—give to governments at higher levels the authority to determine the extent of credits and of grants. And there will be occasions on which resort must be had to borrowing, other taxes, or

[11] It is actually a matter of indifference whether all governments impose taxes upon the personal income base or whether government at the top, all-inclusive level, imposes the tax and shares its revenues with governments at other levels. In Canada, the Dominion (central) government has recently offered grants of $227 million to the provincial (state) governments on condition that they give up all income, death, and corporate taxes. Such centralization would probably not be possible in the United States, but the same results could be obtained by common participation in income taxation by the method of tax credits.

income taxes in excess of federal credits. We have studied public borrowing sufficiently to show that it is not only a legitimate but a necessary fiscal instrument. Avoidance of its use is not always fiscal virtue, but too often fiscal foolishness. The imposition of income taxes at the state (or local) level in excess of credits allowed by government at a higher level may frequently be necessary. In such cases it is clearly understood that the scale of state or local functions determined upon requires heavier taxation of those state or local incomes. In such cases the locus of burdens is well known, and among the taxpayers involved, burdens can be fairly allocated.

As to other types of taxes to supplement income tax revenues, the general rule is to impose the burden of justification upon them. Modest consumption taxes upon items such as gasoline, liquor, tobacco products, and genuine luxury or snobbery articles can be supported on reasonable welfare grounds. Death taxes similar to those currently in use should clearly remain a part of the system. These revenues can logically be supplemented by prices for government-produced goods and by administrative revenues. The latter, however, should clearly be limited to allocable benefits and allocable costs of specific regulatory functions, and not used, as they are generally at present, to produce net general revenues. Finally, there may be occasions when excess profits taxes, and even sales taxes, will prove useful for sumptuary purposes.

A realistic view of the possibilities of attaining such an integrated and coordinated revenue system offers little encouragement. Our form of governmental organization erects serious formal obstacles to its attainment. Popular and legislative opinion do not currently reflect much true recognition either of the problem or of the principles upon which our analysis is based. In the long run it is the latter which counts, for formal obstacles can be surmounted where the will to cooperation exists. We repeat, therefore, that a system such as is here described represents the ultimate objective toward which progress should be measured. If it can be accepted as an ideal, some real progress will have been made.

THE REVENUE CONSEQUENCES OF COORDINATION

The largest single obstacle to coordination of the revenue system in accordance with the pattern described above is the dread of losing revenue. In practice, the virtues of justice and compensatory usefulness are presumed to be too costly in terms of revenue loss. And ambition for reform is frequently dulled by the erroneous presumption that when the public becomes accustomed to a tax system, its injustices gradually disappear. That is, when injustice becomes traditional it ceases to be injustice. Therefore, let sleeping dogs lie.

The fundamental absurdity of the presumption that integration *necessarily* involves loss of revenue lies in its failure to recognize that all taxes are finally derived from the stream of individual incomes. If present uncoordinated federal, state, and local revenue systems take $50 billion in a year from the income stream, why should it be impossible to take the same revenue from the same source by the use of a coordinated system? Though it is true that elimination of excises, sales taxes, business taxes, property taxes, and poll taxes would immediately reduce governmental revenues, these revenues could, if cyclical conditions permitted, be taken through the personal income tax. In fact, there is ample evidence that improvement of the tax system through abandonment of regressive taxes upon various segments of the income stream in favor of a progressive tax on whole personal incomes would, in general, raise the level of incomes from which taxes are paid. Thus, a given tax "take" would both represent a smaller proportion of income as a whole, and would be so allocated as to adjust individual burdens more fairly.

As a generalization, therefore, we can see that no net decline in revenues is necessary under integration. But we must be more specific. Abandonment of the regressive taxes would either increase the income tax base, making for larger income subject to income tax rates, or would increase the ability to pay from given income. The former recognizes that if other prior taxes were not deducted from taxable income—as they must be at present—the magnitude of individual taxable income would be increased. Some part of this

increased taxable income would fall into higher brackets and therefore pay higher rates. In any case, income tax receipts would automatically rise somewhat, without change in present income tax laws. But many of the taxes whose abandonment is recommended are not in fact deducted from taxable income under present law. This is due partly to the fact that some are not legally deductible, and partly to the fact that though they may be legally deducted their calculation is so difficult that they are ignored by the taxpayer in computing taxable income. Though abandonment of these taxes would not increase the size of taxable income under present laws, the ability to pay from that income would be increased. Suppose, for example, that the taxable income of an individual were \$2000 under the federal law applicable in early 1947. Suppose that as a consumer the incidence of \$100 of other taxes was upon him during the year, but that he does not deduct that amount from his taxable income, either because the law does not allow it or he fears that it would be difficult to prove that he had borne this \$100 burden of other taxes. Since his taxable net income is \$2000, he pays income tax at the rate of 19 per cent. In reality his income tax of \$380 is paid on a true ability to pay measured by \$1900, or the effective rate of tax is $\frac{380}{1900}$ or 20 per cent. Thus, if other taxes were eliminated, a rate of 20 per cent on \$2000 taxable net income would be no more burdensome upon him than is the 19% rate at present.[12]

But a general rise in income tax rates is to be expected if the income tax is to furnish the major share of revenues. Let us observe as an example the results of a study by Gerhard Colm concerning allocation of federal, state, and local tax burdens in 1938–39. These are presented in Table 37. Such statistical studies imply generalizations as to incidence which are admittedly not precise. In this case it was assumed that personal income taxes are not shifted, that corporate income taxes are borne by stockholders, and that all others are shifted to consumers. Nevertheless, the figures are indicative of general truths which are inescapable.

If all other taxes were to be replaced by an income tax, and the

[12] In fact, a 20% tax rate on \$2000 would be slightly less burdensome than a 20% rate on \$1900, because of diminishing utility of income.

TABLE 37 All Taxes as Per Cent of Consumer Income, 1938–39 [13]

INCOME CLASSES	TAXES AS % OF PERSONAL INCOME *Federal*	*State and Local*	*Total*
Under $500	7.9	14.0	21.9
$500–$1,000	6.6	11.4	18.0
$1,000–$1,500	6.4	10.9	17.3
$1,500–$2,000	6.6	11.2	17.8
$2,000–$3,000	6.4	11.1	17.5
$3,000–$5,000	7.0	10.6	17.6
$5,000–$10,000	8.4	9.5	17.9
$10,000–$15,000	14.9	10.6	25.5
$15,000–$20,000	19.8	11.9	31.7
$20,000 and over	27.2	10.6	37.8
Total	9.2	11.0	20.2

distribution of burdens were to remain unchanged, the effective rates of tax on *gross* income of varying size would correspond to the percentage figures in the last column of the table. This is pointed out in demonstration of the simple fact that revenue productivity of a tax system is not determined by the number of different taxes imposed, but by the severity of the levies in terms of income. Certainly a loss of revenue by abandonment of tax measures is not inevitable.

On the other hand, the figures given in the table show a distribution of tax burdens badly out of harmony with the economic principles of taxation. Therefore, the tax rates in an integrated income tax system should by no means apply as rates the percentages in the last column. A true progressive schedule would start considerably lower for the smallest incomes, and rise to levels for the large incomes considerably higher than those indicated in the table. Personal exemptions should, of course, be low under an integrated income tax, though rates on net incomes derived from gross incomes under $1500 (for example) should be nominal.

It is highly doubtful that taxes must be "hidden" to make them acceptable. If persons with incomes between $1500 and $2000 per

[13] Temporary National Economic Committee, Monograph No. 3, *Who Pays the Taxes?* Washington, 1941. The figures are from Table 1, p. 6.

year were shown that under the existing system they pay a total of 17 per cent of that income in taxes, and that under an integrated income tax system their whole burden would be reduced to (say) 12 per cent, it is likely that they would accept the change enthusiastically in spite of the fact that the income tax is levied directly and not in a hidden manner. It is presumed, of course, that the income tax would operate on a pay-as-you-earn basis; any other system would be impossible.

In our discussion of revenue productivity of an integrated system built upon the personal income tax we have, of course, assumed it to be desirable that a given amount of revenue be taken. Our earlier discussion of compensatory taxation, however, has indicated that the amount of revenue to be raised will depend in each instance largely upon the current level of national income and the level which it is desired to attain. We are not ignoring the counter-cyclical need for taking disposable income from individuals when inflation threatens, and leaving disposable income in the hands of individuals when employment is deficient. Indeed, the importance of the compensatory function of taxation provides the second major foundation stone of the case for an integrated system based upon the personal income tax. This tax is amenable to compensatory adjustment as is no other single tax or combination of taxes. And its adjustment is peculiarly effective for compensatory purposes because its base is the disposable income of the individual; adjustment is felt precisely at the point where the basic income-influencing decisions to consume, invest, or hoard are made.

RECOMMENDED READINGS

Groves, H. M., *Financing Government,* Revised ed., N. Y., Holt, 1945, Chapter 21.

Good textbook treatment of the general subject.

Haig, R. M., "The Coordination of Federal and State Tax Systems," Chapter 88 in Groves, *Viewpoints on Public Finance.*

Satisfactory general treatment of progress and requirements.

Hansen, A. H., and Perloff, H. S., *State and Local Finance in the National Economy,* N. Y., Norton, 1944, Chapters 7, 8.

Chapter 7 discusses intergovernmental cooperation, Chapter 8 federal underwriting of state and local services. Very profitable reading.

Mitchell, G. W., Litterer, O. F., and Domar, E. D., "State and Local Finance," in *Public Finance and Full Employment*, Washington, Federal Reserve System, 1945, pp. 102–30.

Intelligent discussion of the place of state and local finance in the general fiscal picture, with analysis of the need for coordination, and means by which it might be accomplished.

Maxwell, J. A., *The Fiscal Impact of Federalism in the United States*, Cambridge, Harvard, 1947, Chapter 1.

Historical development of the position of the federal government in fiscal affairs.

CHAPTER 25

MAJOR ISSUES IN PUBLIC FINANCE

In the first chapter of this book it was stated that the major goal in the study of public finance is the formulation of proper fiscal policy. Our analysis throughout has been directed toward the determination of causal relations between fiscal policies and their effects upon the economy. We have noted a multitude of points at which fiscal activities affect the general economy; indeed, there are so many such points of contact that it may at times have been difficult to distinguish those of major from those of minor significance. In this concluding chapter our purpose will be the attainment of perspective with respect to fiscal problems.

We repeat a further observation made in the beginning chapter: that the issues in the field of public finance are by no means solely economic. For public finance is a study of what may be called "political economy." It requires pure economic analysis, but it requires as well decisions concerning public policy. And the making of policy decisions involves choice of proper ends and means, not only in the economic sphere, but in the political and other spheres. In this chapter we shall be required to give more serious attention to non-economic issues than has been given in earlier chapters.

EMPLOYMENT OF FISCAL MEASURES FOR ECONOMIC PURPOSES

The major issue in public finance concerns the use of fiscal instruments for the accomplishment of general economic pur-

poses. Throughout earlier chapters we have consistently given attention to the general economic implications of fiscal practice for the level of employment at which the economy operates. The very persistence of this point of view in the analysis may have suggested to the reader that no issue remains—that this view is generally accepted. This is by no means the case, for in popular thinking what we have referred to as "compensatory" or "economic" use of fiscal instruments is still quite generally thought to be something ranging from "novel" to "alien." [1] The pros and cons of this issue are enlightening.

The Case For Compensatory Fiscal Policy We shall state this case only briefly, for it has been elaborated throughout previous chapters. It begins with recognition of the fact that the financial operations of governments have grown to such proportions as to have inevitably powerful effects upon the level at which the economy operates. When governments take from and put into the stream of national income from one-fourth to one-third of that stream, the effects cannot be neutral. There are two major types of these effects. First, the choice as to the proper level of expenditure implies choice as to the degree to which services of government are substituted for services privately produced. That is, when government takes *money* income in taxes and spends it, to that degree private income is not disposable by private individuals according to their individual desires, but by government according to the desires of the society as represented by governmental decisions. In the *real* sense, expenditure by government directs the employment of economic factors of production into the creation of things which society, as represented by government, wishes produced. Thus, fiscal operations inevitably determine into what lines a significant portion of economic resources is directed. This is true *whether or not* fiscal

[1] Professor H. L. Lutz (*Public Finance,* 4th ed., New York, Appleton-Century, 1947) brands compensatory views as "alien doctrines." Whether he means alien to tradition and orthodox fiscal doctrine, or whether he means to use the word as a weapon is not clear. Without doubt these doctrines are alien to orthodoxy. But if he means that they are alien in the sense of having foreign origin (Lord Keynes and England), the term is an impotent weapon, for so was orthodox doctrine (and the Classical economics upon which it is founded) of English origin.

policy is consciously directed to such ends. The case for functional use of fiscal instruments thus begins with the recognition that taxation, borrowing, and spending have significant economic effects in any case, and urges conscious fiscal policy to the end of avoiding negative results in terms of economic welfare.

Second, the case for compensatory use contemplates more than avoidance of negative economic results. It points to the possibilities for engineering a reasonably stable level of production high enough to avoid the wastes involved in unemployment of productive factors. It also emphasizes the need for fiscal-monetary controls to avoid inflation when productive resources are fully employed. Since the business cycle is a cycle of spendings, fiscal instruments are to be used to (1) supplement private spending with public spending in periods of underemployment, and (2) discourage private spending through heavy taxation when anticipations are such as to cause only price inflation in periods of full employment. Thus, fiscal instruments are regarded as peculiarly effective tools for control of the level of employment in the private economy. Their use is advocated in the public interest, to avoid the social ravages of severe depression and inflation, and therefore to protect the private economy from the consequences of its most serious fault—instability.

The Case Against Compensatory Fiscal Policy The opponents of compensatory policy oppose it on several grounds. These may be classified as:

1. Opposition on grounds that compensatory policy is only "make-work" policy, and is thus uneconomic.
2. Opposition on grounds that compensatory devices are unworkable; that is, incapable of accomplishing the desired ends.
3. Opposition on grounds of fear of debt.
4. Opposition on political grounds.

The opponents of compensatory policy hold to the orthodox doctrines of budget balance. But in their view not only should the ideal —except in extreme emergencies—be a balanced budget; the budget should be balanced at the lowest possible level of taxation and expenditure. This statement, however, simply begs the question, for all would agree to it. The question at issue is: What is the lowest

possible level of taxation and expenditure? The "functional finance" school would measure the desired levels of taxation and expenditure solely in terms of employment and national income needs. Those who favor compensatory use of fiscal measures would define the minimum necessary levels in terms of both the scale of governmental services to be financed and the needs of the economy as to employment and income. The orthodox group would ignore functional and compensatory uses, and define minimum levels solely in terms of the current need for governmental services and debt reduction, with special attention to the avoidance of unbalanced budgets.

In this orthodox view, the income-inducing effects of expenditure are largely unrecognized, and expenditures which are not "self-liquidating"—in the sense that they do not bring in to government an income equal to their cost—are generally classed as "unproductive." [2] Thus, a large share of modern public expenditure is unproductive and wasteful; "necessary" functions are too elaborately performed, and many unnecessary functions are carried on at the expense of the economy.[3] This results in withdrawal of private income in taxes—currently or in the long run—which could be put to more economic use if left in private hands. But let us consider the elements in the "orthodox" case separately.

1. *Is Compensatory Policy "Make-work" Policy?* The "alien" doctrines of compensatory use of fiscal policy have frequently been characterized as assuming that spending without production can improve welfare, and they have been attacked on the grounds that there is "no free lunch." [4] This characterization is, however, entirely improper, for the case for compensatory spending is firmly grounded in the thory that the levels of employment and production in a private economy are determined by the level of

[2] The exceptions are public education and protection, by tradition.

[3] The "knowledge" that expenditures are excessive appears to be based in many cases upon intuition alone. Note, for example: "Federal personnel totals now well over twice what it did in 1939 and nearly four times what it did in 1932. *It is inconceivable that so many employees are really necessary.*" Quoted from Roswell Magill, "Taxes, The Federal Budget and Debt," *The Tax Review,* March, 1947, p. 10. (Italics added.)

[4] *Cf.* Lutz, *op. cit.,* Preface, pp. v, vi.

spending, or of effective demand. The creation of effective demand is possible through governmental spending, even—under proper conditions—for "boondoggling" projects. For the receipt of disposable income by individuals may well increase effective demand, calling forth increased production in the private economy.

The issue here appears to be mainly one of assumptions. Neoclassical economics, upon which orthodox fiscal theory is based, assumes full employment. Underemployment is viewed as but a temporary aberration of the economy, carrying its own correctives. Thus, the only possible situation of equilibrium in the economy is that at full employment, and deviations from this equilibrium situation are self-correcting. Under such assumptions compensatory spending is but meddling, tending to throw out of gear the forces working toward equilibrium. Opposed to this view, compensatory doctrine points to the possibility of equilibrium at any level of employment, the level being dependent upon consumption and investment—effective demand. In this view it is erroneous to assume that compensatory policy only redistributes existing production, taking from those who have and giving to those who lack. If this were the case, compensatory policy would be providing "free lunch" to those who lack. But the reasoning goes farther; in conditions of underemployment, spending by those who lack creates employment and production, so that what they purchase is not simply a deduction from the quantities of goods available to others; it is largely a net addition to total production. This being the case, compensatory spending policy is not "free lunch" policy, but is designed to put unutilized productive capacity of the economy to work. It is thus entirely economic.

Curiously enough, compensatory doctrine is quite acceptable, in some of its applications, to the orthodox group. For example, there is no disposition to deny that one of the factors causing the short but severe business recession in 1937–38 was the cessation of compensatory expenditure by government. If the cessation of spending was a cause of the recession, then the spending itself was a cause of the previously higher level of production. Further, none would deny that government expenditure during war is the principal cause of high production. The war was by no means fought with "free lunch." Yet there is hesitancy to admit the generalized fact that

under most circumstances government expenditure acts the same as private expenditure in the promotion of production when there is unused productive capacity.

On the side of compensatory use of taxation the same situation appears. The orthodox view holds, though with less enthusiasm, that taxation is an ineffective controller of the general level of effective demand. Yet it is one of the axioms of orthodox (and compensatory) doctrine that the war and post-war inflationary pressure was due to monetization of the public debt. Both sides hold that, given the level of necessary war expenditures, financing by taxation would have been less inflationary than financing by loans. And during 1947 the widespread business request for federal tax reduction was based principally upon the fear that continued heavy taxation would so curb effective demand as to make recession inevitable. These are cases demonstrating obvious recognition of the potential effectiveness of taxation as a compensatory measure.

The charge that compensatory spending policy is "make-work" policy is seen to depend upon the question whether spending by government can actually create additional production or whether it simply redistributes existing production. We find the latter to occur only when full utilization of productive capacity exists, and when additions to the volume of production cannot occur. In such full employment circumstances spending brings about the sort of redistribution of real income which inflation inevitably produces. And under such conditions compensatory fiscal doctrine would have expenditures reduced to a minimum and heavier taxation instituted. Increase of production can and does occur during periods of underemployment, by the increase of effective demand. How successful it is will depend largely upon the manner in which it is administered; [5] compensatory doctrine is as much concerned with the manner and timing of spending and taxing as with the fact of spending and taxing. But the evidence is perfectly clear that fiscal operations do significantly affect the level at which the economy operates.

2. *Are Compensatory Devices Workable?* The case against compensatory fiscal policy places strong emphasis upon the assertion that compensatory devices are unworkable. Their work-

[5] See Chapters 5 and 6.

ability is strongly questioned on both theoretical and practical grounds. The more naive theoretical objection falls back upon the general assertion that government "can only give public employment at the expense of private employment." [6] Such an assertion is necessarily true only under full employment conditions, when it is a choice of "guns or butter" because productive resources are fully utilized. As we have seen, however, compensatory theory fully recognizes this fact, calling for compensatory increase of employment only when unemployment exists.

A more nearly valid objection to the theory of compensatory policy emphasizes the effect of public activity upon the expectations of entrepreneurs. We have in an earlier chapter (Chapter 5) discussed the problem of business confidence. If the act of public spending during underemployment has adverse effects upon business confidence, the spending itself may lower the level of private spendings. Additional public spending under such circumstances does not represent a net addition to total spendings, and the over-all result in the extreme case may conceivably be an even lower level of total (private and governmental) spending than before. But to assume that such results are inevitable or even typical reflects poor judgment; though some decline in business spending may occur, it is difficult to imagine a public expenditure program so bungled as to have no net positive effect upon the level of effective demand. And we repeat that compensatory doctrine recognizes the possibility of both good and bad results, and considers as important data the essential ingredients of each. By and large the good (effective) compensatory spending policy is that which damages business confidence least, while the good (effective) compensatory tax policy is that which most strongly influences—positively or negatively—private propensities to spend.

We have seen in our earlier analysis that the confidence factor is extremely difficult to measure or to forecast; yet it is a highly volatile influence. However, it can by no means be granted that any governmental fiscal device will prove unworkable because it inevitably creates an at least equal and offsetting reaction in the private

[6] Quoted from a review by John Chamberlain of Henry Hazlitt's *Economics in One Lesson;* The New York Times Book Review, August 4, 1946, p. 3.

economy. The choice is between doing essentially nothing about depression and boom, or utilizing measures which, if cognizance is taken of the importance of anticipations, can affect the levels of employment and income.

On the practical side it has been objected that government cannot command the economic and statistical competence to direct intelligently the administration of compensatory devices. Economics is not an exact science, particularly in the forecasting sense, and existing economic statistics are neither as extensive nor as precise as we should like them to be. The typical interested person tends to expect too much of compensatory policy, and to condemn it because it is not perfect. Although ideally we should like completely to iron out business fluctuations, except in emergencies requiring all-out effort, this is hardly possible in a private enterprise economy. Though it would be nice to be able to forecast exactly when and by how much employment would decline or prices rise, so that preparations could be complete when they occur, such an ideal solution is out of the question. Our statistical knowledge can be adequate to show when employment actually is rising or falling, and by approximately how much. And such information can be useful as a basis for policy to moderate business fluctuations. Recent experience indicates that we need not worry much about the lack of perfection in our statistical tools until we can assure ourselves that as a society we are ready to utilize the available tools sensibly.[7] And it is reasonable to expect that determination to make serious use of economic forecast would lead to improvement in the techniques and data to be used.

3. *The Fear of Debt* Prior to World War II the fear of debt was a stronger element in the case against compensatory policy than it appears to be since the war. We have analyzed the burden of debt in Chapter 9 and have found it to result principally from transfers of disposable income between persons and classes. But the fear of debt increase is founded largely upon the notion that compensatory policy requires constant debt increase. The long underemployment period of the thirties, the war, and the fear of

[7] For example, the drive for tax reduction in 1947, in the face of full employment and galloping inflation, indicates that until we are willing to heed the signs there is little need to improve our statistical tools.

heavy post-war reconversion unemployment combined to suggest a rather constant pressure to increase debt, particularly if compensatory policy were wholeheartedly adopted.

On the other hand, experience during the two years following termination of the war showed quite clearly: (1) that the American economy is not without periods of extreme prosperity, and (2) that debt burden is related most significantly to the level at which the economy is operating. The importance of the first lies in its demonstration that persistent debt increase is by no means inevitable, and that budget surplus which makes debt reduction possible is quite attainable in modern times. For the peacetime economy has demonstrated itself to be at times virile enough to hold to full employment in spite of the load of wartime tax rates. The importance of the second lies in its demonstration of the relative ease with which high debt can be borne under conditions of full employment. This demonstration has tended to transfer emphasis from the fear of debt to the fear of low national income.

Approximately 90 per cent of the federal debt at the end of fiscal 1946 had been incurred for wars. Less than 10 per cent could be considered to have been incurred for purposes even remotely related to compensatory operations. And this small proportion was incurred in connection with policies which were not seriously compensatory in nature. In the face of these facts it is not surprising that the fear of debt as a basis for objection to compensatory policy should have declined in importance. The burden of huge debt, incurred almost exclusively for war purposes, has been found to be by no means unbearable. The lesson is thus reasonably clear: a low level of economic activity is far more to be feared than is the burden of debt incurred for compensatory purposes.

The behavior of the majority party in Congress in 1947 testifies to the decline in importance of the fear of debt. A party committed by tradition to fiscal orthodoxy, whose attitude while in the minority had been strongly condemnatory of unbalanced budgets and debt increase, found itself heir in 1947 not only to Congressional control but also to conditions which appeared to be potentially productive of large budget surplus. The record is instructive; little concern was voiced for reduction of debt, but the potential budget surplus was

to be used primarily for tax reduction. We are not here required to evaluate over-all fiscal practice during this period. But it is significant to note the decline in concern for the height of debt, even in orthodox thinking.[8]

4. *Opposition on Political Grounds* The most frequently voiced objection to compensatory fiscal policy belongs in the field of politics rather than in that of economics. It is feared that assumption by government of the responsibility for maintenance of full employment will lead inevitably to dictatorial "statism" and the disappearance of individual liberty and democratic government. This is expected for two reasons: (1) when employment is paternalistically guaranteed by government, the people will turn more and more to government for employment, thus establishing a paternalistic employer-employee relationship between government and its citizens; and (2) government spending to promote employment will inevitably involve controls over the distribution of income and private spending.

The degree to which these fears would materialize in practice is difficult to predict. It would depend almost entirely upon the capacity of democratic government to behave democratically, and upon the degree of enthusiasm which the people retain for the private enterprise system.[9] For compensatory fiscal policy is designed to operate through the private economy. Government's expenditures upon public works are paid out to private individuals and private firms. It can, of course, choose the individuals and firms to whom payment will be made in the first instance. But when funds are respent they are entirely free of governmental controls. And it is important to note that compensatory policy does not contemplate that

[8] The president of General Motors Corporation was reported to have testified before a Congressional committee in June, 1947, against the "radical" policy of reducing debt by high taxes, and was quoted as follows: "A reduction in the national debt, brought about by the collection of taxes, can be done too fast and prove to be deflationary. An orderly reduction of the debt, coupled with tax reductions, should be undertaken as a means of maintaining the present economic level." (New York *Herald Tribune*, June 25, 1947, p. 17.) High public debt is thus not the supreme evil it was formerly claimed to be.

[9] It is quite possible that compensatory fiscal policy will not be popularly embraced until arrival of a serious business depression. If so, enthusiasm for the private enterprise system may well be at a low ebb.

government itself will employ unemployed workers in large numbers. The objective is to make employment of workers by private firms possible by governmental purchase of things which private firms produce for sale.

Compensatory tax policy is designed to control private expenditure only indirectly. The imposition of heavy taxes to discourage private spending, and the lightening of the tax load to encourage private spending, have as their major objective the exercise of control. However, the control is exercised over total spending of the taxed individual; there remains a large area of freedom of choice in the disposition of remaining income. The redistribution of income by taxation is inevitable if the principle of ability to pay is to guide tax policy. And the long-run compensatory objective of raising the level of consumption points to persistent use of progressive taxation, thus bringing about some redistribution of income.

Such controls, though indirect and therefore hardly "dictatorial," represent marked departure from the principles of pure laissez faire. But no modern economy has paid more than lip service to pure laissez faire; the compensatory policies contemplated here represent little if any departure from the system of free enterprise as we have experienced it during the last quarter-century.

Probably the real issue here faced is that of possible alternatives to the use of compensatory and other control policies. Can the private enterprise system correct its own propensities toward instability? If not, can the institutions of a free enterprise system and democratic government survive in the absence of control? Does personal freedom really exist under conditions of widespread unemployment? These are questions to which it is difficult to give categorical answers. It is probable, however, that most experts would answer all of them in the negative. And if negative answers are correct, the choice between compensatory policy and the alternatives is not difficult to make, though it may be admitted that compensatory policy is policy designed to exercise control. The comparison is too frequently made between full employment policy and pure laissez faire, and not between full employment policy and the possible alternatives.

In a very real sense the differences between the "budget

balancers" and the enthusiasts for compensatory fiscal policy can be summed up in the question, "Which budget is it important to consider?" Orthodox views are concerned with the fiscal budget, while compensatory views are concerned with the national economic "budget." The latter "budget" is always balanced, since, for the economy as a whole, income and expenditure are always equal. The objective is thus not to balance social income and spendings, for they will inevitably be equal, but to have them balance at a full employment level. The fiscal budget is then seen to be but a single element in the total economic picture, to be balanced, less than balanced, or more than balanced as employment conditions require. This assumes, of course, that fiscal operations are capable of affecting significantly the levels of employment and income.

THE ISSUE OF TAX RELIEF

In the period following the Second World War the question of tax relief has loomed large in fiscal discussion. It takes several forms. In one form it is the question of relieving investment incomes and large incomes from the tax burden carried over from the preceding decade. In another form it is a question of relieving low incomes from tax pressure during a period of cost-of-living inflation. In a third and more general form it is a question of return to pre-war normality all along the line in matters of tax rates.

Basically the issue is seen to be either that of policy which is wise in the compensatory sense or that of justice as between groups. The drive for tax reduction in 1947 [10] was generally described as a return toward pre-war levels, though both the form of tax reduction provided in the bill and the testimony of its proponents during the hearings emphasized the desire to remove onerous burdens from middle and large incomes. We have seen [11] that the across-the-board type of reduction contemplated in the 1947 action would have actually retained a major part of the war burden upon low incomes,

[10] The bill was passed in both houses by substantial majorities, but was vetoed by the President, and the veto upheld.

[11] See footnote 16 on page 459 for a demonstration of the degree to which across-the-board reduction would have returned tax burdens to their pre-war relationships.

while the extent of relief from such burdens increased as the income level increased. The President's veto message emphasized this point.

The issue of tax relief for larger incomes focused in this instance upon essentially compensatory doctrines. Those who opposed the reduction did so largely on anti-inflationary grounds. It was insisted that a period of full employment and rising prices was an inappropriate time for any kind of tax reduction. On the other hand, those who favored the reduction did so largely on grounds of the long-run desirability of granting incentives to large- and profit-income receivers. The issue was thus not clearly drawn; it was a matter of the short, cyclical view versus the long, secular view, and the arguments of one side did not meet those of the other. It is, however, clear that both objectives could have been attained, though by different types of action. We have seen in earlier chapters how certain types of investment income are discriminated against by the double burden of corporate and personal income taxes. The long-run relief of incomes discriminated against could better be accomplished by removal of the discrimination than by reduction of personal income tax rates. And the short-run, anti-inflation arguments for retention of the general schedule of high tax rates were clearly appropriate under the conditions obtaining.[12]

In the same period (1947) an issue developed between those who would heartlessly apply counter-cycle tax principles and those who urged tax relief of low incomes when inflation was pressing living standards downward. Here the issue was between vigorous use of the tax tool to control and its use to improve short-run welfare of those underprivileged in the scheme of income distribution. Unquestionably the little fellow was being seriously squeezed by rising prices. But the very fact that his propensity to consume was high meant that tax relief would encourage the upward course of prices. Tax relief would thus be only temporary, and within a few months

[12] It was frequently asserted that tax reduction was necessary in order to avoid impending recession due to buyers' strikes against rapidly rising prices. This would, of course, be a perverse use of counter-cycle taxation; it might postpone recession by encouraging inflation for a longer period, but would clearly not avoid the eventual consequences of producers' pricing themselves out of the market. Proper counter-cycle policy would apply the tax brakes to inflation, releasing the brakes only when recession arrived.

or weeks he would feel the pressure of prices as strongly as before. To the dismay of those possessing a strong social welfare point of view, the lower-income receivers are those whose spending makes up the bulk of consumption expenditure, for they constitute the large body of consumers. Though individually their living standards are disappointingly modest, they are largely responsible for aggregate consumption demand. When production can be expanded, their relief from tax burdens may bring about both a higher level of employment and higher standards of living; but under full employment they cannot be given tax relief without seriously encouraging price inflation. Thus they cannot gain from fuller employment, and they cannot gain from the inflation which tax relief encourages. It is for this reason that relief of lower incomes from the wartime tax burden could not, except very temporarily, have improved the living standards of those less privileged. The issue is thus resolved by taking the longer view, and anti-inflation tax policy is indicated.

It seems evident that the issue of tax relief in any particular set of circumstances requires the setting of objectives in this order: (1) elimination of long-run discrimination against particular types or levels of income, and (2) use of tax rates to engineer controls in terms of welfare through the cycle. Once basic injustices and discriminations are removed, to set a "norm" of relationships among taxpayers, the accomplishment of cyclical stabilization will in virtually all circumstances provide a higher level of welfare than will a program temporarily favoring one group and then another.

ISSUES CONCERNING TYPES OF TAXES TO BE USED

The period following the Second World War is one during which a great deal of legislative soul-searching will occur. The persistent pressure for high revenue—in the national government to finance the requirements of international leadership, and in state and local governments to carry out deferred functions under high price levels—requires a high degree of fiscal statesmanship. What long-run adjustments in tax measures are in order? What new tax instruments should be called into service? Many of the apparent problems are but mirages which will disappear with recognition of the simple fact that the source of tax payments is the incomes of individuals.

With pathetic innocence and bewilderment state legislatures conclude that unfortunately the only tax capable of producing the necessary revenue is the sales tax. It is sheer nonsense to assume that income transferred to government through the sales tax could not be transferred in equal amounts through the income tax. Yet the existing federal rates are presumed to preclude significant use of a similar measure by the states.

There would seem to be considerable merit in requiring legislators to learn and understand a simple fiscal catechism as a prerequisite to assumption of office.[13] The time and energy of legislators would be economized, and the society protected against frequent legislative missteps, if a catechism such as the following could be made to underlie policy:

1. All taxes are finally paid from personal income; income to business firms is but in the process of becoming personal income.
2. The person upon whom a tax originally is assessed is by no means always the person who finally pays it; most types are shifted in at least some degree.
3. The use of various types of tax measures can serve but two purposes: (a) to select from the mass of income receivers certain individuals or groups who are chosen, for reasons of ability, benefit, or control, to pay taxes, or (b) to simplify the process of administration.
4. Therefore, adoption of a whole kit of apparently unrelated tax bases does not avoid multiple impact upon the source of taxes; and the more complex the tax system—both in type and in variety of measures employed—the less certain the knowledge of its effects.

And understanding of these principles would go far toward dispersing the dense fog currently enveloping fiscal thinking. It is hardly conceivable that its points are debatable; it does not reflect a philosophy or a point of view. It does not carry political overtones, unless public confusion is regarded as a political vested interest. What it does is essentially to clear the air for and make mandatory the determination of basic fiscal objectives. When objectives are

[13] The catechism should not be classified as top secret, for the eyes of legislators only. Common citizens are equally concerned and equally confused.

spelled out and the principles for their attainment are understood, the preparation of legislation is largely a mechanical matter. In virtually every instance a loosely drawn law reflects either indecision as to objectives or ignorance as to principles, or both.

THE NON-ECONOMIC ASPECTS OF PUBLIC FINANCE

In Chapter 1 we pointed out that the determination of fiscal policy requires coordination of the efforts of many specialists. Among these specialists, economists play only a part, though a significant part. We have in this book, however, analyzed fiscal theory and fiscal policy only from the viewpoint of the economist; that is, we have been concerned only with the economic aspects of public finance. This is not to deny the importance of the historical, political, sociological, and legal aspects of the study, but to emphasize an aspect too imperfectly understood and too little accented.

The conclusions we have drawn are essentially economic conclusions. That these conclusions may require some qualification in view of the existence of non-economic factors is readily granted. But the degree of qualification must constantly be determined in full view of the economic implications of such qualification. *Non*-economic considerations ought not to so condition policy as to make it *un*-economic.

Let us see what some of the non-economic considerations might be. From the point of view of the political scientist or the practical politician, tradition and usage bulk large as political values. It may be that the purely economic analysis leads to conclusions which would require change so radical as to destroy such values. Compensatory fiscal policy is itself a case in point; its immediate and wholehearted adoption might be considered by the political scientist to involve too abrupt change in the relation of government to its citizens, and its gradual introduction might be recommended. Or it may be that the conditions or traditions of government service are such as to make difficult the attraction of competent personnel to direct compensatory policy intelligently. It may be that government by pressure groups is so significant as to make consistently intelligent policy impossible. Conceivably, government is so insistently repre-

sentative—that is, representatives are so determined to reflect what they believe to be the current desires of their constituents that they do not act consistently in conformity with the truth as they see it—as to question the likelihood that consistent policy is possible.

Possibly the suggested alteration of present veto practice, making possible the veto of portions of bills while approving others, would be in the long run dangerously upsetting to the desired balance between executive and legislative powers. And it is always possible that existing legislation or a long line of court decisions would make certain economically desirable changes infeasible from the point of view of the political scientist, the politician, or the lawyer. It is even conceivable that elimination of confused thinking and establishment of simple truths would weaken the institution of the two-party political system by removing political issues. If this is true the prospects for democratic government are dismal indeed. It may be that the sociologist would react unfavorably toward mandatory joint income tax returns, and would favor the opposite alternative of separate returns.

There are almost limitless possibilities that the conclusions of the economist with respect to acceptable fiscal policy will raise major or minor objection from specialists in other fields. Clearly, when non-economic considerations are paramount, the economist's recommendations should be qualified. But it may be insisted that questions of fiscal policy are, by and large, fundamentally economic. When qualification of economic conclusions is suggested for non-economic reasons, the burden of proof should generally be upon the proponent of qualification. Otherwise basically economic problems will be subject to uneconomic treatment because of the intrusion of non-economic considerations.

NON-FISCAL ASPECTS OF ECONOMIC PROBLEMS

Intensive study of a particular field of economics is naturally attended with the danger that considerations outside that particular field are under-emphasized. It may be assumed, for example, that the emphasis in this book upon the general compensatory possibilities in public finance implies that fiscal practice is the principal or only determinant of the level of economic activity. This

is by no means the case. Monetary and banking controls may be of extreme importance in determining the level of income in certain circumstances. The relative bargaining power of various income classes will be a significant determinant of the pattern of income distribution and thus of the volume of consumption and investment spending. Quite probably the most important factor in the level of employment is the degree of competition existent in the economy. Thus, fiscal policy is but one of the instruments of stabilization and control. When it is not used consistently in conjunction with non-fiscal controls, its effectiveness is reduced. When it is used as a palliative for evils which should themselves be rooted out it is likely not only to be relatively ineffective, but to do real harm in postponing needed action. The monopoly question is a case in point. If compensatory spending results only in increased monopoly profits, more firmly entrenching monopolistic firms, fiscal policy will not only fail to promote employment, but will itself promote conditions conducive to stagnation. And basic tax revisions intended to remove the discrimination against profit incomes, and thus to promote acceptance of risks in investment, will relieve monopolies of some part of their present tax burdens. Though savings may increase as a result, their investment to provide employment does not follow when the possessors are primarily interested in saving the market, protecting what they have, and avoiding the acceptance of risk. The administered prices of monopoly are peculiarly destructive of stable employment at a high level. For a decline in demand is typically accompanied by a decline in output and employment rather than by a decline in price, while an increase in demand is likely to by sponged up in price and profit increase rather than an increase in output and employment.

Fiscal operations, by their very nature, produce significant general economic effects, and their intelligent direction can purposefully affect the level at which the economy operates. However, fiscal policy is not the be-all and end-all among economic influences or controls. Its intelligent use implies coordination with non-fiscal economic policy, the latter in many instances being the more necessary or effective.

INDEX